

=> file reg

FILE 'REGISTRY' ENTERED AT 16:39:52 ON 04 MAY 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 American Chemical Society (ACS)

=> d his

FILE 'HCAPLUS' ENTERED AT 14:04:39 ON 04 MAY 2005

L1 208 S NAM M?/AU
L2 621 S PHOTOALIGN? OR PHOTO(2A)ALIGN?
L3 7 S L1 AND L2
SEL L3 1-7 RN

FILE 'REGISTRY' ENTERED AT 14:08:52 ON 04 MAY 2005

L4 19 S E1-E19
L5 9 S L4 AND PMS/CI

FILE 'HCAPLUS' ENTERED AT 14:12:18 ON 04 MAY 2005

L6 7520 S NAM ?/AU
L7 10 S L6 AND L2
L8 3 S L7 NOT L3
SEL L8 1-3 RN

FILE 'REGISTRY' ENTERED AT 14:13:24 ON 04 MAY 2005

L9 3 S E20-E22

FILE 'LREGISTRY' ENTERED AT 14:40:28 ON 04 MAY 2005

L10 STR

FILE 'HCAPLUS' ENTERED AT 14:42:18 ON 04 MAY 2005

L11 158955 S LCD# OR L(W)C(W)D OR (LIQ# OR LIQUID?) (2A)CRYST?
L12 168 S L6 AND L11
L13 33 S L1 AND L11
L14 26 S L13 NOT L3
SEL L14 1-26 RN

FILE 'REGISTRY' ENTERED AT 14:44:41 ON 04 MAY 2005

L15 42 S E23-E64
L16 5 S L15 AND PMS/CI

FILE 'HCAPLUS' ENTERED AT 14:50:26 ON 04 MAY 2005

L17 2162 S NAM M?/AU OR NAM S?/AU
L18 8 S L17 AND L2
L19 80 S L17 AND L11

SEL L18 1-8 RN

FILE 'REGISTRY' ENTERED AT 14:51:49 ON 04 MAY 2005

L20 22 S E65-E86
L21 10 S L20 AND PMS/CI

FILE 'HCAPLUS' ENTERED AT 14:53:40 ON 04 MAY 2005
SEL L19 1-80 RN

FILE 'REGISTRY' ENTERED AT 14:53:45 ON 04 MAY 2005

L22 109 S E87-E195
L23 17 S L22 AND PMS/CI
L24 SCR 2043
L25 0 S L10 AND L24
L26 STR L10
L27 0 S L26 AND L24

FILE 'LREGISTRY' ENTERED AT 14:59:35 ON 04 MAY 2005

L28 0 S L26
L29 1 S L26 FUL

FILE 'REGISTRY' ENTERED AT 15:00:26 ON 04 MAY 2005

L30 5 S 15131-55-2/CRN

FILE 'LREGISTRY' ENTERED AT 15:02:10 ON 04 MAY 2005

L31 STR L26
L32 0 S L31 FUL

FILE 'REGISTRY' ENTERED AT 15:06:48 ON 04 MAY 2005

L33 0 S L31
E "3,3'-OXYBIS(CYCLOPENTADIENE)"/CN
E C5H8O/MF
L34 390 S E3
L35 0 S L34 AND ?CYCLOPENTADIEN?/CNS

FILE 'LREGISTRY' ENTERED AT 15:17:25 ON 04 MAY 2005

L36 STR
L37 28 S L36
L38 STR L36
L39 7 S L38
L40 132 S 16.127.6/RID
L41 7 S 2 16.127.6/RID

FILE 'REGISTRY' ENTERED AT 15:19:04 ON 04 MAY 2005

L42 0 S L34 AND L41
E C10H8O/MF
L43 358 S E3
L44 0 S L43 AND L41

L45 3 S L43 AND ?CYCLOPENTADIEN?/CNS

FILE 'REGISTRY' ENTERED AT 15:21:43 ON 04 MAY 2005

L46 0 S L26 AND L24

L47 5 S L26 AND L24 FUL

L48 5 S L30 OR L47

FILE 'HCA' ENTERED AT 15:23:16 ON 04 MAY 2005

L49 4 S L48

FILE 'LREGISTRY' ENTERED AT 15:23:30 ON 04 MAY 2005

L50 STR

FILE 'REGISTRY' ENTERED AT 15:28:05 ON 04 MAY 2005

L51 15 S L50 AND L24

FILE 'LREGISTRY' ENTERED AT 15:28:39 ON 04 MAY 2005

L52 STR L50

FILE 'REGISTRY' ENTERED AT 15:31:14 ON 04 MAY 2005

L53 6 S L52 AND L24

FILE 'LREGISTRY' ENTERED AT 15:32:06 ON 04 MAY 2005

L54 STR L52

L55 STR

FILE 'REGISTRY' ENTERED AT 15:34:13 ON 04 MAY 2005

L56 4 S (L54 NOT L55) AND L24

L57 45 S (L54 NOT L55) AND L24 FUL

SAV L57 HON738/A

SAV L47 HON738A/A

FILE 'HCA' ENTERED AT 15:38:02 ON 04 MAY 2005

L58 32 S L57

FILE 'LREGISTRY' ENTERED AT 15:38:02 ON 04 MAY 2005

L59 STR

FILE 'REGISTRY' ENTERED AT 15:44:21 ON 04 MAY 2005

L60 50 S L59 AND L24

L61 SCR 2068

L62 47 S L59 AND L61

L63 SCR 1992 OR 2004 OR 2016 OR 2021 OR 2026

L64 1 S L59 AND L61 NOT L63

L65 3069 S L59 AND L24 FUL

SAV TEM L65 HON738B/A

L66 1 S L59 AND L61 NOT L63 SSS SAM SUB=L65

L67 47 S L59 AND L61 NOT L63 SSS FUL SUB=L65

SAV L67 HON738C/A

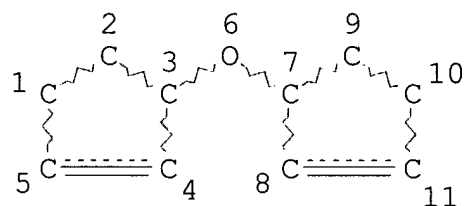
FILE 'HCA' ENTERED AT 16:36:41 ON 04 MAY 2005

L68 60 S L67
L69 6 S L68 AND L11
L70 0 S L68 AND L2
L71 54 S L68 NOT L69

FILE 'REGISTRY' ENTERED AT 16:39:52 ON 04 MAY 2005

=> d 147 que stat

L24 SCR 2043
L26 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L47 5 SEA FILE=REGISTRY SSS FUL L26 AND L24

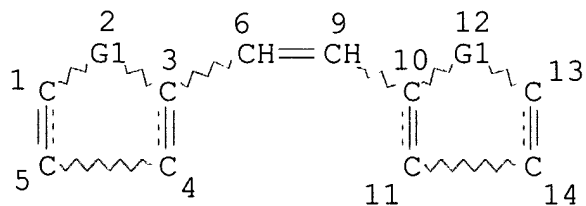
100.0% PROCESSED 3070 ITERATIONS

5 ANSWERS

SEARCH TIME: 00.00.01

=> d 157 que stat

L24 SCR 2043
L54 STR



VAR G1=O/CH2/NH/S

NODE ATTRIBUTES:

CONNECT IS E3 RC AT 1

CONNECT IS E3 RC AT 13

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

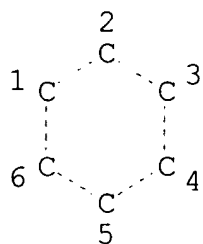
GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L55 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L57 45 SEA FILE=REGISTRY SSS FUL (L54 NOT L55) AND L24

100.0% PROCESSED 9148 ITERATIONS

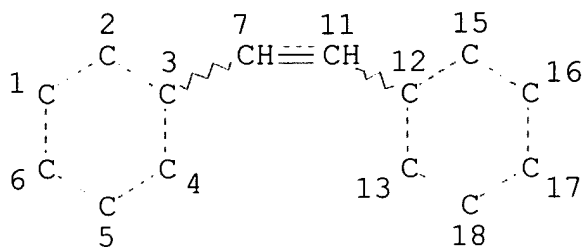
45 ANSWERS

SEARCH TIME: 00.00.01

=> d 167 que stat

L24 SCR 2043

L59 STR



NODE ATTRIBUTES:

CONNECT IS E3 RC AT 6
 CONNECT IS E3 RC AT 17
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I
 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L61 SCR 2068
 L63 SCR 1992 OR 2004 OR 2016 OR 2021 OR 2026
 L65 3069 SEA FILE=REGISTRY SSS FUL L59 AND L24
 L67 47 SEA FILE=REGISTRY SUB=L65 SSS FUL L59 AND L61 NOT L63

100.0% PROCESSED 47 ITERATIONS 47 ANSWERS
 SEARCH TIME: 00.00.01

=> file hca

FILE 'HCA' ENTERED AT 16:40:40 ON 04 MAY 2005
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
 COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

=> d 149 1-4 cbib abs hitstr hitrn

L49 ANSWER 1 OF 4 HCA COPYRIGHT 2005 ACS on STN
 140:304159 Novel stereoselective molecularly imprinted polymers via
 ring-opening metathesis polymerization. Patel, Alpesh; Fouace,
 Sandra; Steinke, Joachim H. G. (Department of Chemistry, Imperial
 College London, London, SW7 2AZ, UK). Analytica Chimica Acta,
 504(1), 53-62 (English) 2004. CODEN: ACACAM. ISSN: 0003-2670.
 Publisher: Elsevier Science B.V..

AB Stereoselective molecularly imprinted polymers (MIPs) have been synthesized via ring-opening metathesis polymn., in essentially, quant. yield. A covalent imprinting strategy was followed during the network formation of the chiral sorbent. Recognition of the substrate however involved non-covalent interactions; a combination of hydrogen bonding and the chiral environment presented by the imprinted cavities. The enantiomeric excess achievable with these new MIPs is solvent dependent and stereoselectivities of up to 20% ee (sepn. factor α . = 2.2) were found in batch equilibrations.

IT **676540-19-5P**

(novel stereoselective molecularly imprinted polymers via ring-opening metathesis polymn.)

RN 676540-19-5 HCA

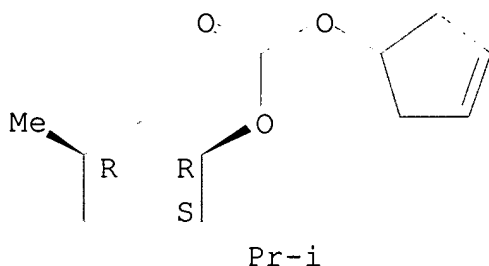
CN Carbonic acid, 3-cyclopenten-1-yl (1R,2S,5R)-5-methyl-2-(1-methylethyl)cyclohexyl ester, polymer with 3,3'-oxybis[cyclopentene] (9CI) (CA INDEX NAME)

CM 1

CRN 676540-18-4

CMF C16 H26 O3

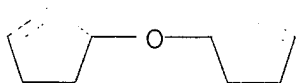
Absolute stereochemistry.



CM 2

CRN 15131-55-2

CMF C10 H14 O



IT **676540-19-5P**

(novel stereoselective molecularly imprinted polymers via ring-opening metathesis polymn.)

L49 ANSWER 2 OF 4 HCA COPYRIGHT 2005 ACS on STN

137:141971 Ultraviolet radiation-curable ink-jet printing inks with low viscosity and tough printed images after curing. Noutary, Carole (Sericol Limited, UK). PCT Int. Appl. WO 2002061001 A1 20020808, 17 pp. DESIGNATED STATES: W: JP, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-GB368 20020129. PRIORITY: GB 2001-2227 20010129.

AB Title ink-jet ink comprises (I) at least one multifunctional (meth)acrylate monomer, (II) at least one .alpha.,.beta.- unsatd. ether monomer, (III) at least one radical photoinitiator, and (IV) at least one coloring agent. The ink is substantially free of water or volatile org. solvents and exhibits viscosity of less than 100 mPas at 25.degree.. Thus, an ink compn. comprises propoxylated neopentyl glycol diacrylate 69.82, Actilane 505 1.56, Solsperse 32000 1.25, Hostaperm Red E 5B02 3.60, Genorad 16 0.12, Rapi-Cure DVE 3 10.0, Lucirin TPO 8.6, benzophenone 5.0, and Byk 307 0.05 part.

IT **444611-15-8P**, Actilane 422-2-cyclopenten-1-yl ether copolymer

(manuf. of UV radiation-curable ink-jet printing inks)

RN 444611-15-8 HCA

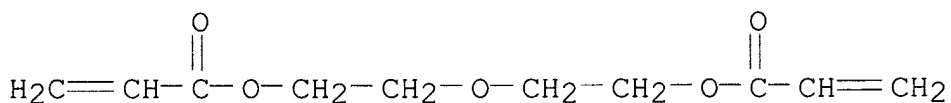
CN 2-Propenoic acid, oxybis(methyl-2,1-ethanediyl) ester, polymer with 3,3'-oxybis[cyclopentene] (9CI) (CA INDEX NAME)

CM 1

CRN 57472-68-1

CMF C12 H18 O5

CCI IDS

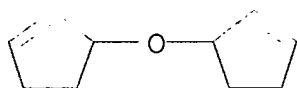


2 (D1-Me)

CM 2

CRN 15131-55-2

CMF C10 H14 O



IT **444611-15-8P**, Actilane 422-2-cyclopenten-1-yl ether
copolymer
(manuf. of UV radiation-curable ink-jet printing inks)

L49 ANSWER 3 OF 4 HCA COPYRIGHT 2005 ACS on STN

113:98272 High-molecular-weight boron-containing polymers and their manufacture. Saegusa, Takeo; Nakajo, Yoshiki; Tomita, Ikuyoshi; Tanigawa, Hiroto; Ihara, Eiji; Hashiguchi, Yuichi (Japan Synthetic Rubber Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 02077428 A2 19900316 Heisei, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-300628 19881130. PRIORITY: JP 1988-147026 19880616.

AB The polymers, useful as heat-resistant plastics and rubbers, contain units -B(R1)R2- (R1 = C4-10 monovalent org. group; R2 = divalent group formed by addn. of 2 H to compds. contg. .gtoreq.2 olefinic double bonds and/or .gtoreq.1 acetylenic bond and/or .gtoreq.1 nitrile group), have wt.-av. mol. wt. (as polystyrene) 1000-500,000, and are manufd. by reaction of R1BH2 with unsatd. compds. contg. .gtoreq.2 olefinic bonds, .gtoreq.1 acetylenic bond, or .gtoreq.1 nitrile group. Thus, a soln. of 1.03 g 1,7-octadiene in THF was treated dropwise with 10.5 mL 0.95M Me2CHCMe2BH2 soln. in THF at 20.degree. and stirred 2 h at room temp. to give 1.38 g polymer with wt.-av. mol. wt. 26,200 and no.-av. mol. wt. 22,800.

IT **128967-11-3P**
(manuf. of high-mol.-wt.)

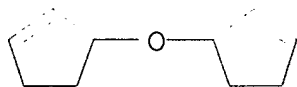
RN 128967-11-3 HCA

CN Borane, (1,1,2-trimethylpropyl)-, polymer with 3,3'-oxybis[cyclopentene] (9CI) (CA INDEX NAME)

CM 1

CRN 15131-55-2

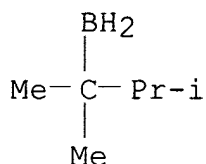
CMF C10 H14 O



CM 2

CRN 3688-24-2

CMF C6 H15 B



IT **128967-11-3P**
 (manuf. of high-mol.-wt.)

L49 ANSWER 4 OF 4 HCA COPYRIGHT 2005 ACS on STN
 87:118991 Poly(phenol/diene) resin and rubber adhesive compositions
 tackified therewith. Gobran, Ramsis (Minnesota Mining and
 Manufacturing Co., USA). U.S. US 4039724 19770802, 6 pp. Division
 of U.S. 3,944,523. (English). CODEN: USXXAM. APPLICATION: US
 1975-604927 19750815.

AB Phenol deriv. polymers with nonconjugated dienes, prepd. in the
 presence Friedel-Crafts catalysts and having no.-av. mol. wts.
 600-5000 and glass transition temps. 100-220.degree. are good
 tackifiers for rubber-based pressure-sensitive adhesives, esp. when
 partially hydrogenated. Thus, 600.8 g p-tert-butylphenol and 15.2
 mL BF₃.cntdot.AcOH were mixed, and 528.8 g dicyclopentadiene was
 added over 1.5 h at 120.degree.. The mixt. was heated 4 h at
 130.degree. to give a honeylike copolymer [56236-49-8] having
 no.-av. mol. wt. 1270.

IT **64155-85-7**
 (tackifiers, for rubber-based pressure-sensitive adhesives)

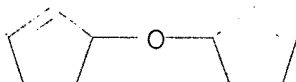
RN 64155-85-7 HCA

CN Phenol, 4-(1,1-dimethylethyl)-, polymer with 3,3'-
 oxybis[cyclopentene] (9CI) (CA INDEX NAME)

CM 1

CRN 15131-55-2

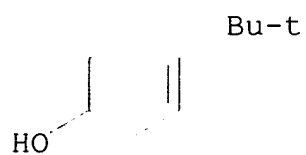
CMF C10 H14 O



CM 2

CRN 98-54-4

CMF C10 H14 O



IT **64155-85-7**
(tackifiers, for rubber-based pressure-sensitive adhesives)

=> d 158 1-32 cbib abs hitstr hitrn

L58 ANSWER 1 OF 32 HCA COPYRIGHT 2005 ACS on STN

141:227136 Furan-polyether-modified chitosans as photosensitive polymer electrolytes. Gandini, Alessandro; Hariri, Sahar; Le Nest, Jean-Francois (Materiaux Polymeres, Ecole Francaise de Papeterie et des Industries Graphiques, St. Martin d'Heres, 38402, Fr.). Natural Polymers and Composites IV, Proceedings from the International Symposium on Natural Polymers and Composites, 4th, Sao Pedro, Brazil, Sept. 1-4, 2002, 314-323. Editor(s): Capparelli Mattoso, Luiz Henrique; Leao, Alcides; Frollini, Elisabete. Embrapa Instrumentacao Agropecuaria: Sao Carlos, Brazil. ISBN: 85-86463-10-8 (English) 2002. CODEN: 69ETIK.

AB This study describes a comprehensive approach to the prepn. of novel polymer electrolytes comprising (i) oligo(ethylene oxide) solvating chains and conjugated furan chromophores, both grafted onto a film forming chitosan backbone and (ii) lithium perchlorate as the ionic conductor. The combination of these four elements was conceived in order to optimize both the electrochem. and mech. properties of the materials and to maintain their thermoplastic character until the end of the process, since their photoinduced crosslinking takes place only after the dissoln. of the salt and the formation of a thin film.

IT 745048-40-2P

(crosslinked; photosensitive polymer electrolytes contg.
furan-polyether-modified chitosans and lithium perchlorate)

RN 745048-40-2 HCA

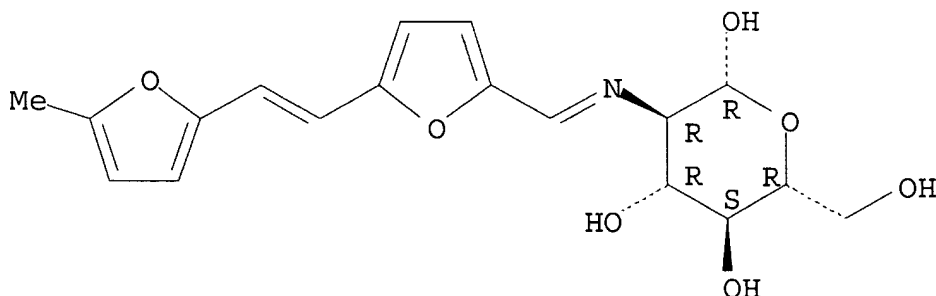
CN .beta.-D-Glucopyranose, 2-deoxy-2-[[[5-[2-(5-methyl-2-furanyl)ethenyl]-2-furanyl]methylene]amino]-, polymer with chitosan and oxirane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 645412-34-6

CMF C18 H21 N O7

Absolute stereochemistry.
Double bond geometry unknown.



CM 2

CRN 9012-76-4

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 75-21-8

CMF C2 H4 O



IT 745048-40-2P

(crosslinked; photosensitive polymer electrolytes contg.
furan-polyether-modified chitosans and lithium perchlorate)

L58 ANSWER 2 OF 32 HCA COPYRIGHT 2005 ACS on STN

140:95816 Furan-polyether-modified chitosans as photosensitive polymer electrolytes. Gandini, Alessandro; Hariri, Sahar; Le Nest, Jean-Francois (Materiaux Polymeres, Ecole Francaise de Papeterie et des Industries Graphiques, St Martin d'He` res, 38402, Fr.). Polymer, 44(25), 7565-7572 (English) 2003. CODEN: POLMAG. ISSN: 0032-3861. Publisher: Elsevier Science Ltd..

AB This study describes a comprehensive approach to the prepn. of novel polymer electrolytes comprising (i) oligo(ethylene oxide) solvating chains and conjugated furan chromophores, both grafted onto a film-forming chitosan backbone and (ii) LiClO4 as the ionic conductor. The combination of these 4 elements was conceived to optimize both the electrochem. and mech. properties of the materials and to maintain their thermoplastic character until the last step of the process, since their photoinduced crosslinking takes place only after the dissoln. of the salt and the formation of a thin film.

IT 645412-37-9DP, lithium complex 645412-37-9P

(furan-polyether-chitosan Li complexes for photocurable polymer electrolyte thin films)

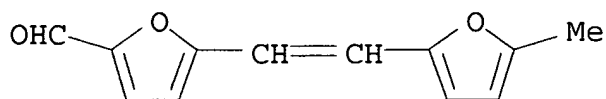
RN 645412-37-9 HCA

CN Chitosan, polymer with 5-[2-(5-methyl-2-furanyl)ethenyl]-2-furancarboxaldehyde and oxirane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 65022-02-8

CMF C12 H10 O3



CM 2

CRN 9012-76-4

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 75-21-8

CMF C2 H4 O



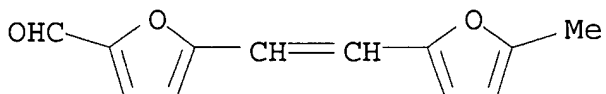
RN 645412-37-9 HCA

CN Chitosan, polymer with 5-[2-(5-methyl-2-furanyl)ethenyl]-2-furancarboxaldehyde and oxirane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 65022-02-8

CMF C12 H10 O3



CM 2

CRN 9012-76-4

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 75-21-8

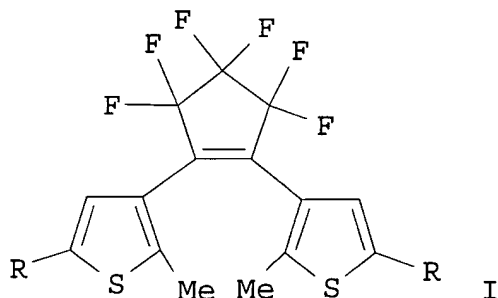
CMF C2 H4 O



IT 645412-37-9DP, lithium complex 645412-37-9P
(furan-polyether-chitosan Li complexes for photocurable polymer electrolyte thin films)

L58 ANSWER 3 OF 32 HCA COPYRIGHT 2005 ACS on STN
136:402547 Dithienylethene derivative and optical-control type conjugated polymers for photochromic materials. Akagi, Kazuo (Foundation for Scientific Technology Promotion, Japan). Jpn. Kokai Tokkyo Koho JP 2002145878 A2 20020522, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-340472 20001108.

GI

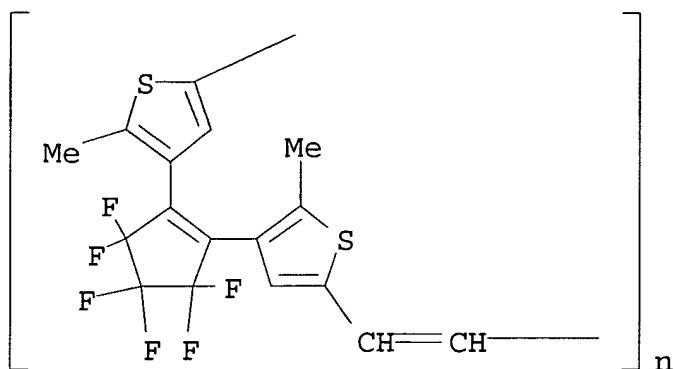


AB The photochromic materials with good responsiveness, thermal stability and durability are derived from I (R = hydrocarbyl or substituted hydrocarbyl) or I polymers. [1,2-Bis(5'-formyl-2'-methylthiophene-3'-yl)perfluorocyclopentene] was prepd. and polymd. with p-xylene-bis(triphenylphosphonium bromide) using K₂CO₃ in DMF to give a copolymer showing photochromism on UV irradiation.

IT 428821-71-0P
(dithienylethene deriv. and optical-control type conjugated polymers for photochromic materials)

RN 428821-71-0 HCA

CN Poly[(5-methyl-2,4-thiophenediyl)(3,3,4,4,5,5-hexafluoro-1-cyclopentene-1,2-diyl)(5-methyl-4,2-thiophenediyl)-1,2-ethenediyl]
(9CI) (CA INDEX NAME)



IT 428821-71-0P

(dithienylethene deriv. and optical-control type conjugated polymers for photochromic materials)

L58 ANSWER 4 OF 32 HCA COPYRIGHT 2005 ACS on STN

135:144696 Acetal copolymers and use thereof in photosensitive compositions. Gandini, Alessandro; Waig, Fang Sandrine; Timpe, Hans-joachim; Baumann, Harald (Kodak Polychrome Graphics Llc, USA).

→ U.S. US 6270938 B1 20010807, 10 pp. (English). CODEN: USXXAM. APPLICATION: US 2000-590930 20000609.

AB The invention relates to acetal copolymers and photosensitive compns. contg. such polymers suitable for lithog. printing plates. In particular, the invention relates to acetal copolymers contg. furylvinylidene, thienylvinylidene or pyrrolylvinylidene.

IT 352000-80-7P 352000-81-8P

(synthesis of acetal copolymers and use in photosensitive compns. suitable for lithog. printing plates)

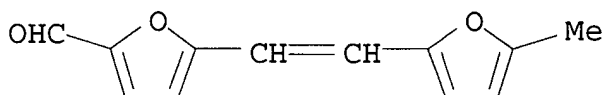
RN 352000-80-7 HCA

CN 2-Furancarboxaldehyde, 5-[2-(5-methyl-2-furanyl)ethenyl]-, polymer with ethenol and propanal (9CI) (CA INDEX NAME)

CM 1

CRN 65022-02-8

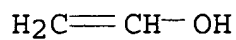
CMF C12 H10 O3



CM 2

CRN 557-75-5

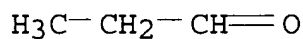
CMF C2 H4 O



CM 3

CRN 123-38-6

CMF C3 H6 O



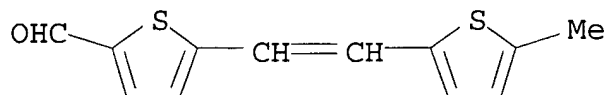
RN 352000-81-8 HCA

CN 2-Thiophenecarboxaldehyde, 5-[2-(5-methyl-2-thienyl)ethenyl]-,
polymer with ethenol and propanal (9CI) (CA INDEX NAME)

CM 1

CRN 178860-72-5

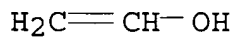
CMF C12 H10 O S2



CM 2

CRN 557-75-5

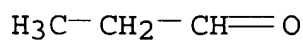
CMF C2 H4 O



CM 3

CRN 123-38-6

CMF C3 H6 O



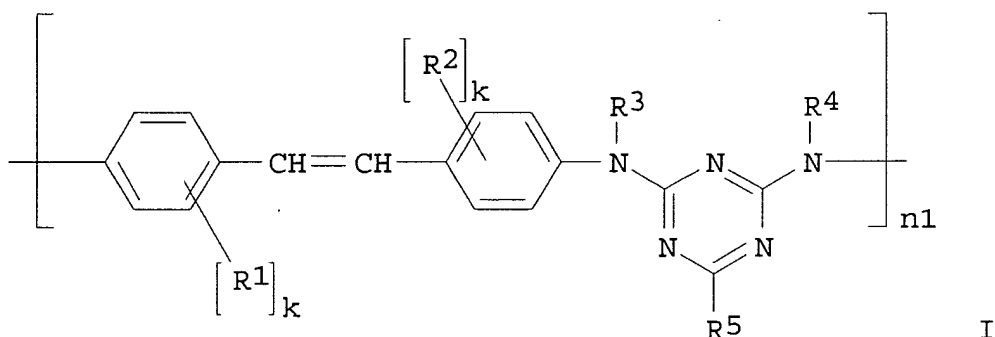
IT 352000-80-7P 352000-81-8P

(synthesis of acetal copolymers and use in photosensitive compns.
suitable for lithog. printing plates)

L58 ANSWER 5 OF 32 HCA COPYRIGHT 2005 ACS on STN

135:68356 Organic electroluminescent device. Nakamura, Kazuaki; Ueda, Noriko; Yamada, Taketoshi; Kita, Hiroshi (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 2001167885 A2 20010622, 44 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-286785 20000921. PRIORITY: JP 1999-276616 19990929.

GI



AB The invention relates to an org. electroluminescent device that emits in UV-violet region, comprising a polymer represented by I [R1-R4 = substitution groups; R5 = H or substitution group; k and m = 0-4 integer; when k and m ≥ 2 , condensed ring may be formed among R1 and R2; n1 = 1-5,000 integer].

IT 345665-81-8 345665-82-9 345666-05-9
345666-07-1 345666-11-7
(org. electroluminescent device)

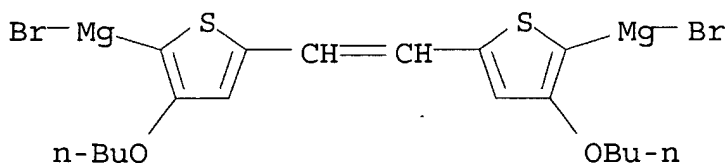
RN 345665-81-8 HCA

CN Magnesium, dibromo[.mu.-[1,2-ethenediylbis(3-butoxy-5,2-thiophenediyl)]]di-, polymer with 2,5-dibromo-3,4-dibutoxythiophene (9CI) (CA INDEX NAME)

CM 1

CRN 345665-80-7

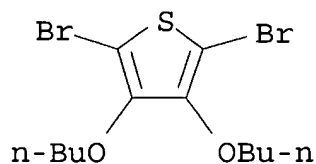
CMF C18 H22 Br2 Mg2 O2 S2



CM 2

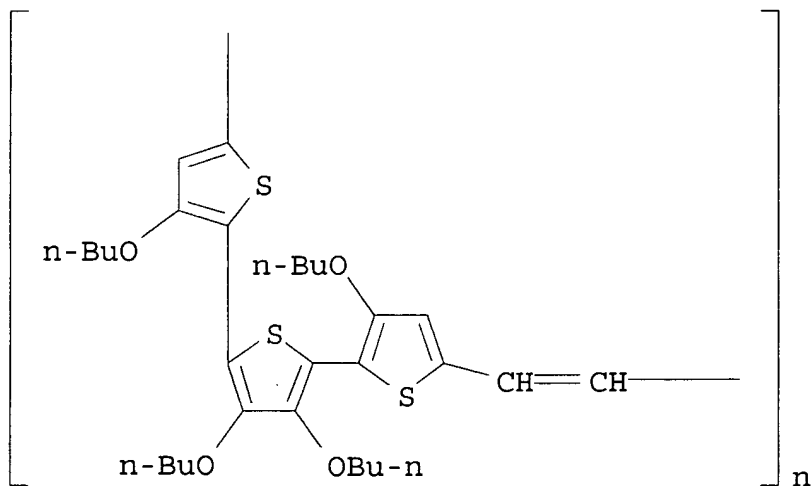
CRN 173291-49-1

CMF C12 H18 Br2 O2 S



RN 345665-82-9 HCA

CN Poly[(3,3',3'',4'-tetrabutoxy[2,2':5',2''-terthiophene]-5,5''-diyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



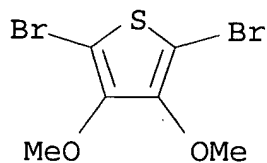
RN 345666-05-9 HCA

CN Magnesium, dibromo[.mu.-[1,2-ethenediylbis(3-methyl-5,2-thiophenediyl)]]di-, polymer with 2,5-dibromo-3,4-dimethoxythiophene (9CI) (CA INDEX NAME)

CM 1

CRN 345666-04-8

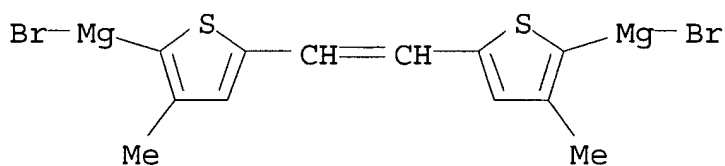
CMF C6 H6 Br2 O2 S



CM 2

CRN 345666-03-7

CMF C12 H10 Br2 Mg2 S2



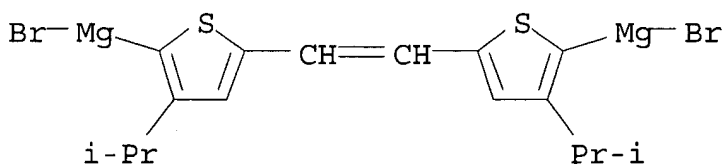
RN 345666-07-1 HCA

CN Magnesium, dibromo[.mu.-[1,2-ethenediylbis[3-(1-methylethyl)-5,2-thiophenediyl]]]di-, polymer with 2,5-dibromo-3,4-dimethylthiophene (9CI) (CA INDEX NAME)

CM 1

CRN 345666-06-0

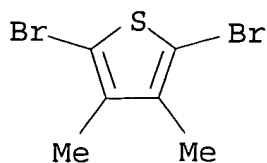
CMF C16 H18 Br2 Mg2 S2



CM 2

CRN 74707-05-4

CMF C6 H6 Br2 S



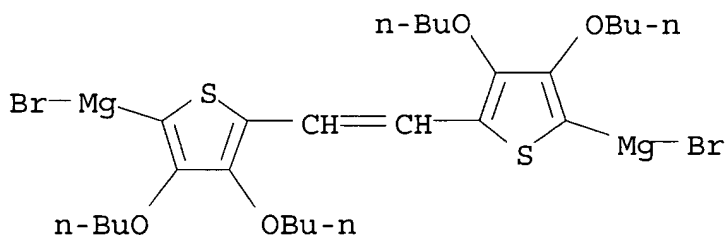
RN 345666-11-7 HCA

CN Magnesium, dibromo[.mu.-[1,2-ethenediylbis(3,4-dibutoxy-5,2-thiophenediyl)]]di-, polymer with 2,5-dibromo-3,4-dimethoxythiophene (9CI) (CA INDEX NAME)

CM 1

CRN 345666-10-6

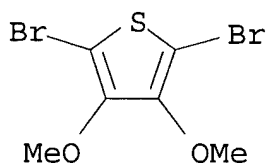
CMF C26 H38 Br2 Mg2 O4 S2



CM 2

CRN 345666-04-8

CMF C6 H6 Br2 O2 S



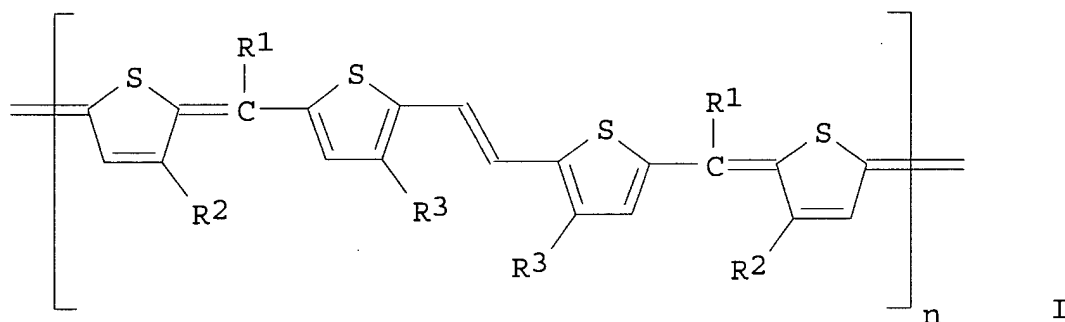
IT 345665-81-8 345665-82-9 345666-05-9
345666-07-1 345666-11-7
(org. electroluminescent device)

L58 ANSWER 6 OF 32 HCA COPYRIGHT 2005 ACS on STN

135:35181 Electroconductive polymers and their use in photovoltaic cells. Umnov, Alexandr V.; Ige, Takeshi (Kokusaki Kiban Zairyo Kenkyusho K. K., Japan; Sharp Corp.). Jpn. Kokai Tokkyo Koho JP 2001151870 A2 20010605, 9 pp. (Japanese). CODEN: JKXXAF.

APPLICATION: JP 1999-332653 19991124.

GI



AB The polymers are shown as I [R1-3 = H, (un)substituted C1-18 alkyl, (un)substituted C1-18 alkoxy, (un)substituted arom., cyano, OH; X = S, O, Se, NR₄; R₄ = H, (un)substituted C1-18 alkyl; n = 5-1000]. The cells consist of transparent electrodes, layers of the polymers, and back-side electrodes and may be solar cells or photodetectors. The polymers have photovoltaic effect at wide region including near IR region, and the solar cells using the polymers have higher short-circuit current (I_{sc}) than conventional polymer solar cells.

IT 343339-46-8P

(methine structure- and vinylene radical-contg. conductive polymers for photovoltaic cells)

RN 343339-46-8 HCA

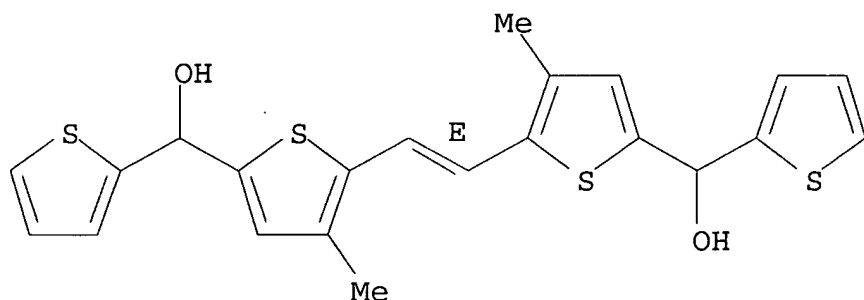
CN 2-Thiophenemethanol, 5,5'-(1E)-1,2-ethenediylbis[4-methyl-.alpha.-2-thienyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 343339-45-7

CMF C22 H20 O2 S4

Double bond geometry as shown.



IT 343339-44-6P

(methine structure- and vinylene radical-contg. conductive polymers for photovoltaic cells)

RN 343339-44-6 HCA

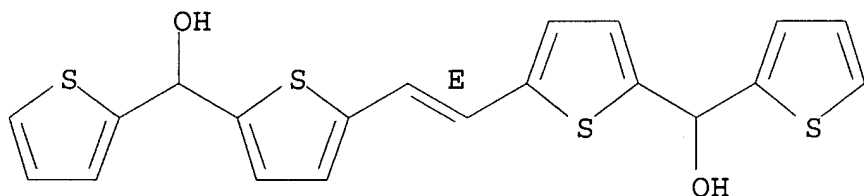
CN 2-Thiophenemethanol, 5,5'-(1E)-1,2-ethenediylbis[.alpha.-2-thienyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 343339-43-5

CMF C20 H16 O2 S4

Double bond geometry as shown.



IT 343339-46-8P

(methine structure- and vinylene radical-contg. conductive polymers for photovoltaic cells)

IT 343339-44-6P

(methine structure- and vinylene radical-contg. conductive polymers for photovoltaic cells)

L58 ANSWER 7 OF 32 HCA COPYRIGHT 2005 ACS on STN

133:350580 Effects of Structural Regularity on the Properties of Poly(3-alkylthienylenevinylenes). Loewe, Robert S.; McCullough, Richard D. (Department of Chemistry, Carnegie Mellon University, Pittsburgh, PA, 15213, USA). Chemistry of Materials, 12(10), 3214-3221 (English) 2000. CODEN: CMATEX. ISSN: 0897-4756.

Publisher: American Chemical Society.

AB Attempts were made to prep. completely regioregular

poly(3-dodecylthienylenevinylene) (PDDTV) and the completely regiorandom PDDTV. However, attempts to prep. the regioregular PDDTV by a Heck polymn. of 2-bromo-3-dodecyl-5-vinylthiophene leads to a regioirregular PDDTV that also contains cross-conjugated defects. Attempts to prep. a regiorandom PDDTV by a Stille polymn. of 2,5-dibromo-3-dodecylthiophene with (E)-1,2-(bistributylstannyl)ethylene led to a polymer that is at least 90% regioregular. Poly[(3-dodecylthienylenevinylene) (4'-3-dodecylthienylenevinylene)] was also synthesized from a sym. dimer using Stille cross-coupling in order to compare the three polymers. The structural and phys. properties of these polymers are compared by UV/vis, NMR, X-ray, and elec. cond. measurements. We have also examd. the MALDI MS of these polymers, and information on mol. wts. and end-group structures are given. The role of dominant catalyst effects is discussed.

IT 306769-53-9P 306769-56-2P

(prepn. and effects of structural regularity on properties of poly(3-alkylthienylenevinlenes))

RN 306769-53-9 HCA

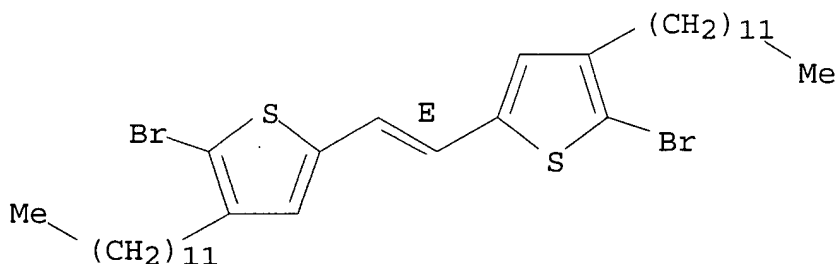
CN Stannane, (1E)-1,2-ethenediylbis[tributyl-, polymer with 2,2'-(1E)-1,2-ethenediylbis[5-bromo-4-dodecylthiophene] (9CI) (CA INDEX NAME)

CM 1

CRN 306769-50-6

CMF C34 H54 Br2 S2

Double bond geometry as shown.

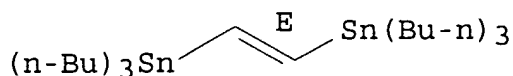


CM 2

CRN 14275-61-7

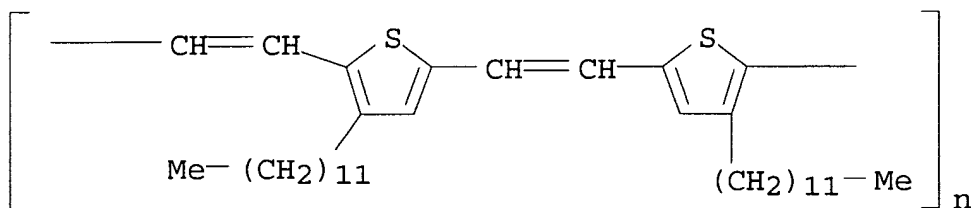
CMF C26 H56 Sn2

Double bond geometry as shown.



RN 306769-56-2 HCA

CN Poly[(3-dodecyl-2,5-thiophenediyl)-(1E)-1,2-ethenediyl(4-dodecyl-2,5-thiophenediyl)-(1E)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



IT 306769-53-9P 306769-56-2P

(prepn. and effects of structural regularity on properties of poly(3-alkylthienylenevinylenes))

L58 ANSWER 8 OF 32 HCA COPYRIGHT 2005 ACS on STN

132:108958 Adjustable electroluminescence: blue-green to red organic light-emitting diodes based on novel poly-non-conjugated oligomers. Berkovich, E.; Klein, J.; Sheradsky, T.; Silcoff, E. R.; Ranjit, K. T.; Willner, I.; Nakhmanovich, G.; Gorelik, V.; Eichen, Y. (Department of Organic Chemistry, The Hebrew University of Jerusalem, Jerusalem, Israel). Synthetic Metals, 107(2), 85-91 (English) 1999. CODEN: SYMEDZ. ISSN: 0379-6779. Publisher: Elsevier Science S.A..

AB Two new polymers, poly-9,10(1,3-bis(4-ethynylphenoxy)propane)anthracene and poly-1,2(tetra-2,5-thienylene-1,2-vinylene)dimethylsilylethane, based on conjugated chromophores that are interconnected via non-conjugated spacers, were prepd. and characterized in terms of their photo- and electroluminescence (PL and EL, resp.) properties in pure films and in solid solns. The application of solid solns. of the two polymers in PVK:PBD (polyvinyl carbazole:2-(4-biphenyl)-5-(4-tert-Bu phenyl)-1,3,4-oxadiazole) matrixes as active layers in adjustable blue-green to red OLED is presented.

IT 219818-48-1P, 1,2-Bis(chlorodimethylsilyl)ethane-tetra-2,5-thienylene-1,2-vinylene copolymer 255852-96-1P

(prepn. and adjustable electroluminescence from blue-green to red org. light-emitting diodes based on novel poly(nonconjugated) oligomers)

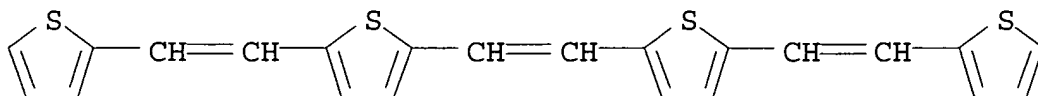
RN 219818-48-1 HCA

CN Silane, 1,2-ethanediylbis[chlorodimethyl-, polymer with 2,2'-(1,2-ethenediyl)bis[5-[2-(2-thienyl)ethenyl]thiophene] (9CI) (CA INDEX NAME)

CM 1

CRN 60602-70-2

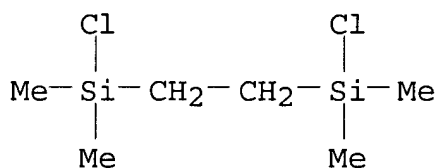
CMF C22 H16 S4



CM 2

CRN 13528-93-3

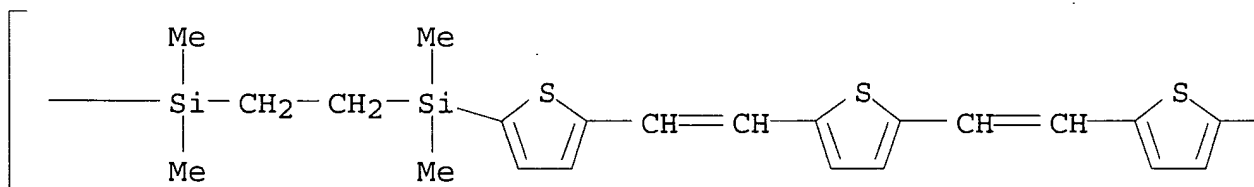
CMF C6 H16 Cl2 Si2



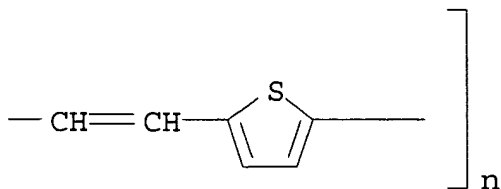
RN 255852-96-1 HCA

CN Poly[2,5-thiophenediyl-1,2-ethenediyl-2,5-thiophenediyl-1,2-ethenediyl-2,5-thiophenediyl-1,2-ethenediyl-2,5-thiophenediyl(dimethylsilylene)-1,2-ethanediyl(dimethylsilylene)]
(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT **219818-48-1P**, 1,2-Bis(chlorodimethylsilyl)ethane-tetra-2,5-thienylene-1,2-vinylene copolymer **255852-96-1P**
(prepn. and adjustable electroluminescence from blue-green to red org. light-emitting diodes based on novel poly(nonconjugated) oligomers)

L58 ANSWER 9 OF 32 HCA COPYRIGHT 2005 ACS on STN

132:93744 Synthesis and characterization of new copolymers of thiophene and vinylene: poly(thienylenevinylene)s and poly(terthienylenevinylene)s with thioether side chains. Goldoni, Francesca; Janssen, Rene A. J.; Meijer, E. W. (Laboratory of Macromolecular and Organic Chemistry, Eindhoven University of Technology, Eindhoven, 5600 MB, Neth.). Journal of Polymer Science, Part A: Polymer Chemistry, 37(24), 4629-4639 (English) 1999. CODEN: JPACEC. ISSN: 0887-624X. Publisher: John Wiley & Sons, Inc..

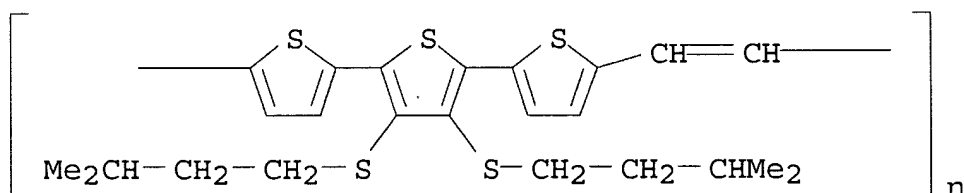
AB Poly[3,4-bis(3-methylbutylthio)thienylenevinylene], poly[3,4-bis-(S)-(2-methylbutylthio)thienylenevinylene], poly[3',4'-bis(3-methylbutylthio)-2,2':5',2''-terthienylene-5,5''-vinylene], and poly{3',4'-bis-(S)-[2-methylbutylthio]-2,2':5',2''-terthienylene-5,5''-vinylene} were synthesized. The thiophene monomers and trimers were formylated to give the corresponding dialdehydes. The dialdehydes were reductively polymd. using a McMurry coupling. The polymers are characterized by GPC, optical spectroscopy (FT-IR, UV-vis, CD spectroscopy and photoluminescence) and by proton and carbon NMR spectroscopy. The polymers are sol. in common org. solvents, such as THF, chloroform, toluene, benzene and 1,2-dichlorobenzene. The solvatochromism and thermochromism of the polymers in soln. are studied, while the optical activity of the polymers is used to study supramol. aggregation.

IT **255044-86-1P**, Poly[3',4'-bis(3-methylbutylthio)-2,2':5',2''-terthiophene-5,5''-vinylene] **255044-89-4P**, Poly{3',4'-bis[2-(S)methylbutylthio]-2,2' : 5',2''-terthiophene-5,5''-vinylene}

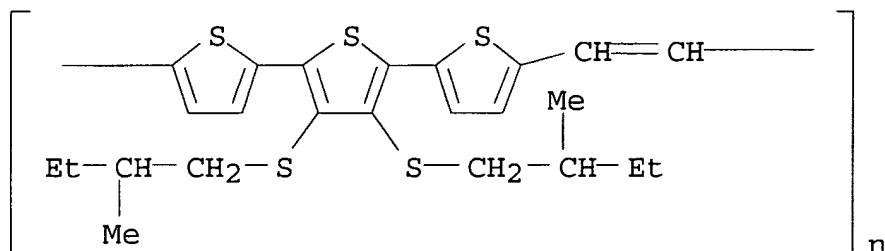
(prepn. and optical activity and solvato- and thermo-chromism of poly(thienylenevinylene)s and poly(terthienylenevinylene)s with thioether side chains)

RN 255044-86-1 HCA

CN Poly[[3',4'-bis[(3-methylbutyl)thio][2,2':5',2''-terthiophene]-5,5''-diyl]-1,2-ethenediyl] (9CI) (CA INDEX NAME)



RN 255044-89-4 HCA
 CN Poly[[3',4'-bis[[(2S)-2-methylbutyl]thio][2,2':5',2''-terthiophene]-5,5''-diyl]-1,2-ethenediyl] (9CI) (CA INDEX NAME)



IT 255044-86-1P, Poly[3',4'-bis(3-methylbutylthio)-2,2':5',2''-terthiophene-5,5''-vinylene] 255044-89-4P, Poly{3',4'-bis[2-(S)methylbutylthio]-2,2':5',2''-terthiophene-5,5''-vinylene}
 (prepn. and optical activity and solvato- and thermo-chromism of poly(thienylenevinylene)s and poly(terthienylenevinylene)s with thioether side chains)

L58 ANSWER 10 OF 32 HCA COPYRIGHT 2005 ACS on STN

132:64597 New oligomers and polymers from anodic coupling of bisdithienylethylene. Berlin, A.; Zotti, G. (Centro CNR Sintesi e Stereochimica di Speciali Sistemi Organici, Milan, 20133, Italy). Synthetic Metals, 106(3), 197-201 (English) 1999. CODEN: SYMEDZ. ISSN: 0379-6779. Publisher: Elsevier Science S.A..

AB Anodic coupling of (E)-1,2-bis(2,2'-bithiophen-5-yl)ethylene, bisdithienylethylene, was carried out in acetonitrile contg. Bu4NClO4 as supporting electrolyte. The resulting material, which was characterized by cyclic voltammetry, UV-vis, FTIR, and matrix-assisted laser desorption ionization (MALDI) mass spectroscopies and in situ cond., comprises mainly dimers coupled through the .alpha.-thiophene positions. In situ (solid state) electrochem. polymn. led to an increase of the d.p. from 2 to ca. 5. The conjugation (.lambda.max = 490 nm) and cond. (5 S cm-1) of the polymer are slightly lower than those of poly(dithienylethylene) (505 nm and 40 S cm-1).

IT 253123-13-6P
 (prepn. of oligomers and polymers via anodic coupling of bisdithienylethylene and electrochem. polymn. of dimers)

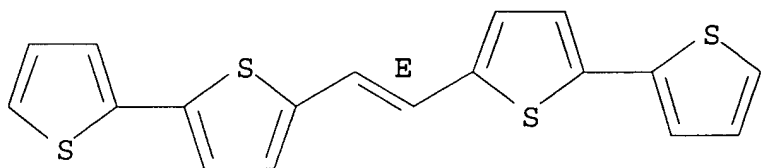
RN 253123-13-6 HCA
 CN 2,2'-Bithiophene, 5,5''-(1E)-1,2-ethenediylbis-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 107267-10-7

CMF C18 H12 S4

Double bond geometry as shown.



IT 253123-13-6P

(prepn. of oligomers and polymers via anodic coupling of
bisdithienylethylene and electrochem. polymn. of dimers)

L58 ANSWER 11 OF 32 HCA COPYRIGHT 2005 ACS on STN

130:267978 Extended oligothienylenevinylenes end-capped with
1,4-dithiafulvenyl .pi.-donor groups. Toward a supramolecular
control of effective conjugation length. Jestin, Isabelle; Frere,
Pierre; Levillain, Eric; Roncali, Jean (Ingenierie Moleculaire
Materiaux Organiques, Universite Angers, Angers, F-49045, Fr.).
Advanced Materials (Weinheim, Germany), 11(2), 134-138 (English)
1999. CODEN: ADVMEW. ISSN: 0935-9648. Publisher: Wiley-VCH Verlag
GmbH.

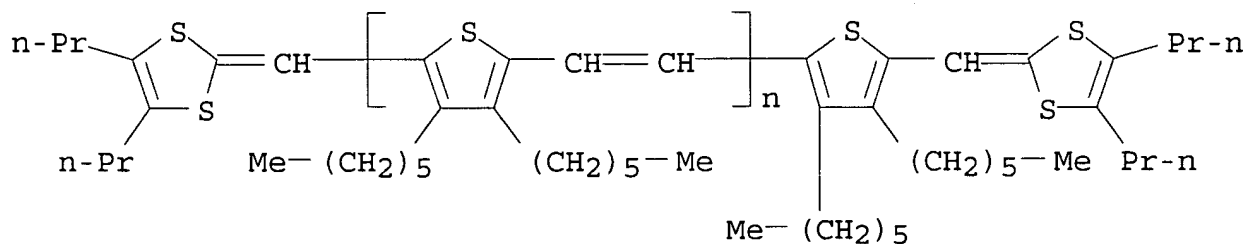
AB The title conjugated systems represent the longest reported
tetrathiafulvalene analogs (.ltoreq.70 sp² C atoms in the
conjugating spacer), and electrochem. and optical properties of
these compds. are reported. The longest compd. can be charged up to
the octacation and hexaanion states within narrow potential ranges.
Cyclic voltammograms (in CH₂Cl₂ for oxidn. and in THF for redn.) and
UV/vis spectra are discussed.

IT 222313-82-8

(oligomeric; redox properties of conjugated
oligothienylenevinylenes end-capped with dithiafulvenyl donor
groups)

RN 222313-82-8 HCA

CN Poly[(3,4-dihexyl-2,5-thiophenediyl)-1,2-ethenediyl],
.alpha.-[(4,5-dipropyl-1,3-dithiol-2-ylidene)methyl]-.omega.-[5-
[(4,5-dipropyl-1,3-dithiol-2-ylidene)methyl]-3,4-dihexyl-2-thienyl]-
(9CI) (CA INDEX NAME)



IT 222313-82-8

(oligomeric; redox properties of conjugated oligothiénylenevinylenes end-capped with dithiafulvenyl donor groups)

L58 ANSWER 12 OF 32 HCA COPYRIGHT 2005 ACS on STN

130:125712 Synthesis of Polymers with Isolated Thiophene-Based Chromophores. Silcoff, Eliad R.; Sheradsky, Tuvia (Department of Organic Chemistry, The Hebrew University, Jerusalem, 91904, Israel). Macromolecules, 31(26), 9116-9120 (English) 1998. CODEN: MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.

AB The polymers presented are designed for the intended use in light-emitting diodes. The synthesis of a new series of macromols. contg. isolated oligothiophene, oligothiénylene vinylene, or bithiazole conjugated units bridged by aliph. units is presented along with optical characterization by UV-vis absorption and fluorescence spectra in soln. These polymers gave very similar optical traits to their corresponding subunits while possessing the phys. characteristics of a macromol.

IT 219818-48-1P

(prepn. of polymers with isolated thiophene-based chromophores for LED)

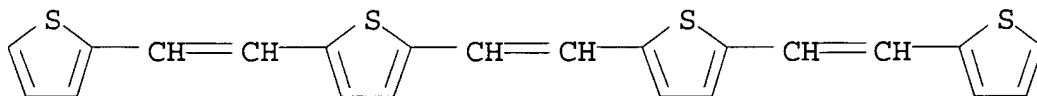
RN 219818-48-1 HCA

CN Silane, 1,2-ethanediylbis[chlorodimethyl-, polymer with 2,2'-(1,2-ethenediyl)bis[5-[2-(2-thienyl)ethenyl]thiophene] (9CI) (CA INDEX NAME)

CM 1

CRN 60602-70-2

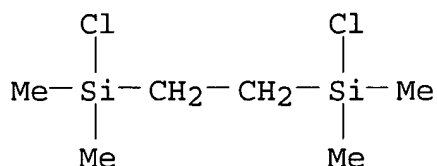
CMF C22 H16 S4



CM 2

CRN 13528-93-3

CMF C6 H16 Cl2 Si2



IT 219818-48-1P

(prepn. of polymers with isolated thiophene-based chromophores for LED)

L58 ANSWER 13 OF 32 HCA COPYRIGHT 2005 ACS on STN

129:231331 Synthetic approach for the incorporation of second-order nonlinear optical chromophores containing heteroatoms into methacrylate copolymers. Samyn, C.; Heylen, M.; Claes, G.; Boutton, C.; Van Beylen, M.; Persoons, A. (Lab. Macromolecular Phys. Organic Chem., Univ. Leuven, Louvain, B-3001, Belg.). European Polymer Journal, 34(8), 1069-1072 (English) 1998. CODEN: EUPJAG. ISSN: 0014-3057. Publisher: Elsevier Science Ltd..

AB Nonlinear optical chromophores with thiophene groups incorporated in the conjugated system were synthesized. Their second-order nonlinear response was evaluated by elec.-field-induced second-harmonic generation (EFISHG) measurements. Off-resonant values $\mu\beta_0$ as high as 589.10-48 esu were obtained. Some of the D. π .A (donor-accepted conjugated) systems were incorporated as side chain into MMA-chromophore functionalized methacrylate copolymers in various concns. The copolymers show a decrease in Tg with increasing chromophore content.

IT 212687-99-5P

(prepn. and characterization of methacrylate copolymers contg. second-order nonlinear optical chromophores)

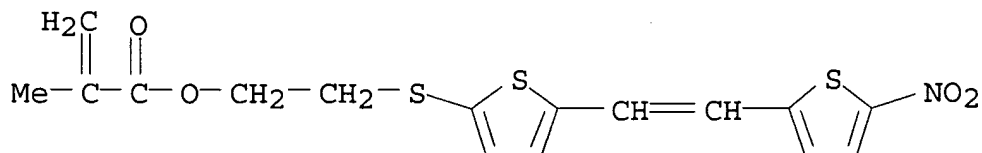
RN 212687-99-5 HCA

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-[[5-[2-(5-nitro-2-thienyl)ethenyl]-2-thienyl]thio]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 212687-95-1

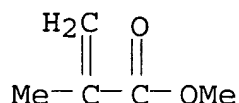
CMF C16 H15 N O4 S3



CM 2

CRN 80-62-6

CMF C5 H8 O2



IT 212687-99-5P

(prep. and characterization of methacrylate copolymers contg.
second-order nonlinear optical chromophores)

L58 ANSWER 14 OF 32 HCA COPYRIGHT 2005 ACS on STN

129:28290 Synthesis and incorporation of thienylene vinylene oligomers in main-chain copolymers. Madrigal, L. G.; Elandalousi, E. H.; Spangler, C. W. (Department of Chemistry and Biochemistry, Montana State University, Bozeman, MT, 59717, USA). Materials Research Society Symposium Proceedings, 488(Electrical, Optical, and Magnetic Properties of Organic Solid-State Materials IV), 647-652 (English) 1998. CODEN: MRSPDH. ISSN: 0272-9172. Publisher: Materials Research Society.

AB Poly[2,5-thienylene vinylene] (PTV) has been studied extensively over the past decade for both its metallic cond. behavior upon chem. doping, as well as its interesting third order nonlinear optical properties. PTV oligomers have been synthesized by our group, as well as others, and the formation of polaron-like radical-cations or bipolaron-like dications by oxidative doping has been demonstrated. In this paper we describe a general synthetic approach to PTV oligomers functionalized for copolymer formation by step-growth reaction.

IT 208054-35-7P 208054-36-8P

(synthesis and incorporation of thienylene vinylene oligomers in main-chain copolymers)

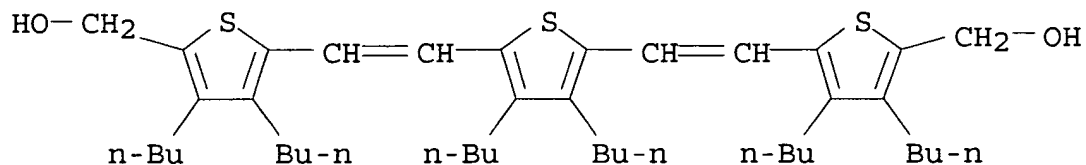
RN 208054-35-7 HCA

CN Hexanedioyl dichloride, polymer with 5,5'-[(3,4-dibutyl-2,5-thiophenediyl)di-2,1-ethenediyl]bis[3,4-dibutyl-2-thiophenemethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 208054-34-6

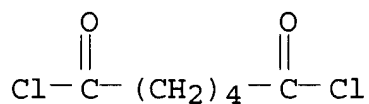
CMF C42 H64 O2 S3



CM 2

CRN 111-50-2

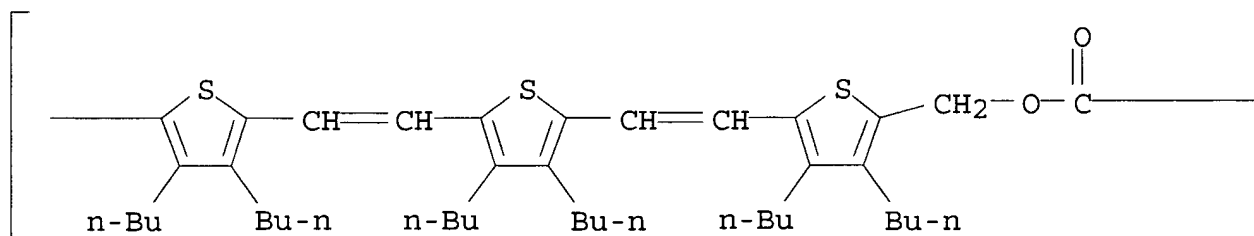
CMF C6 H8 Cl2 O2



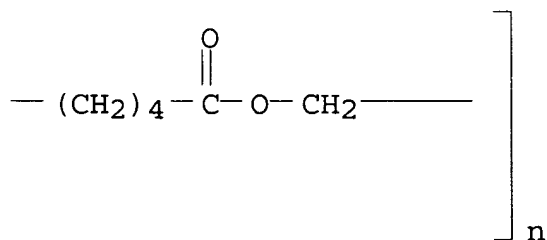
RN 208054-36-8 HCA

CN Poly[(3,4-dibutyl-2,5-thiophenediyl)-1,2-ethenediyl(3,4-dibutyl-2,5-thiophenediyl)-1,2-ethenediyl(3,4-dibutyl-2,5-thiophenediyl)methyleneoxy(1,6-dioxo-1,6-hexanediyl)oxymethylene]
(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT 208054-35-7P 208054-36-8P

(synthesis and incorporation of thienylene vinylene oligomers in main-chain copolymers)

L58 ANSWER 15 OF 32 HCA COPYRIGHT 2005 ACS on STN

127:346747 Photophysics of Main-Chain Polychromophores Prepared by Acyclic Diene Metathesis Polymerization. Miao, Yi-Jun; Bazan, Guillermo C. (Department of Chemistry, University of Rochester, Rochester, NY, 14627-0216, USA). *Macromolecules*, 30(24), 7414-7418 (English) 1997. CODEN: MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.

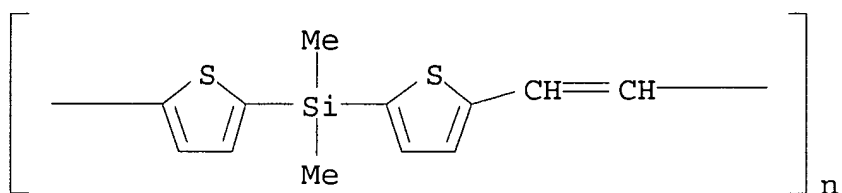
AB A series of bis(vinylthienyl)silane monomers were prep'd. by reaction of 2 equiv of (vinylthienyl)lithium or (vinylthienyl)magnesium bromide with different dichlorosilicon dialkyls. The monomers react with the Schrock initiator Mo(NAR)(CHCMe₂Ph)(OCMe(CF₃)₂)₂ (Ar = 2,6-diisopropylphenyl), via the acyclic diene metathesis polymn. (ADMET) mechanism, to give poly(silanyl-dithienylethene) derivs. in excellent yield. GPC data suggest that the resulting polymers have short repeat sequences. Interchromophore cooperativity is evident, as a low energy emission, for polymer structures that have smaller side groups. This phenomenon is similar to the chromophore cooperativity obs'd. in polymers contg. stilbene fragments along the backbone.

IT 198148-95-7P 198148-96-8P 198148-98-0P

(95% trans-; photophysics of main-chain polychromophores prep'd. by acyclic diene metathesis polymn.)

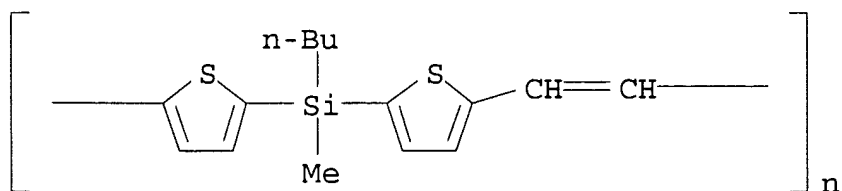
RN 198148-95-7 HCA

CN Poly[2,5-thiophenediyl(dimethylsilylene)-2,5-thiophenediyl-1,2-ethenediyl], (E)- (9CI) (CA INDEX NAME)



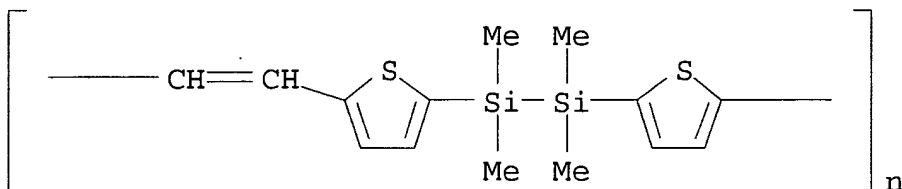
RN 198148-96-8 HCA

CN Poly[2,5-thiophenediyl(butylmethylsilylene)-2,5-thiophenediyl-1,2-ethenediyl], (E)- (9CI) (CA INDEX NAME)



RN 198148-98-0 HCA

CN Poly[2,5-thiophenediyl(1,1,2,2-tetramethyl-1,2-disilanediy)-2,5-thiophenediyl-1,2-ethenediyl], (E)- (9CI) (CA INDEX NAME)



IT 198148-95-7P 198148-96-8P 198148-98-0P

(95% trans-; photophysics of main-chain polychromophores prepd. by acyclic diene metathesis polymn.)

L58 ANSWER 16 OF 32 HCA COPYRIGHT 2005 ACS on STN

126:277833 Methoxy-substituted poly(thienylene vinylenes) and gas sensors. Blockhuys, F.; Peten, C.; De Wit, M.; Geise, H. J. (Department of Chemistry, UIA, University of Antwerp, Universiteitsplein 1, Antwerp, 2610, Belg.). Synthetic Metals, 84(1-3), 347-348 (English) 1997. CODEN: SYMEDZ. ISSN: 0379-6779. Publisher: Elsevier.

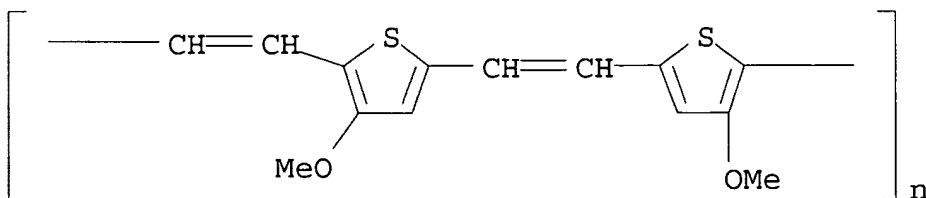
AB Easy processing of poly(arylene vinylenes) has always been troubled by the insoly. of the conjugated system. Introduction of polar side groups inducing higher soly., has overcome this difficulty. Using com. available 3-methoxythiophene, methoxy-substituted poly(thienylene vinylenes) were prepd. via direct methods such as the Grignard and the copper catalyzed coupling, yielding processible conjugated polymers. These types of reactions require the lithiation of the starting-product and in accordance with ab initio calcns. the authors have demonstrated that an excess of butyllithium has to be used to obtain useful yields.

IT 189017-43-4P

(prepn. of methoxy-substituted poly(thienylene vinylenes) and gas sensors)

RN 189017-43-4 HCA

CN Poly[(3-methoxy-2,5-thiophenediyl)-1,2-ethenediyl(4-methoxy-2,5-thiophenediyl)-1,2-ethenediyl], (E,E)- (9CI) (CA INDEX NAME)



IT 189017-43-4P

(prepn. of methoxy-substituted poly(thienylene vinylenes) and gas sensors)

L58 ANSWER 17 OF 32 HCA COPYRIGHT 2005 ACS on STN

126:264650 Synthesis and properties of poly(thienylenevinylene) derivatives with hexyl groups. Toyoshima, R.; Akagi, K.; Shirakawa, H. (Institute of Materials Science, University of Tsukuba, Ibaraki, 305, Japan). Synthetic Metals, 84(1-3), 431-432 (English) 1997. CODEN: SYMEDZ. ISSN: 0379-6779. Publisher: Elsevier.

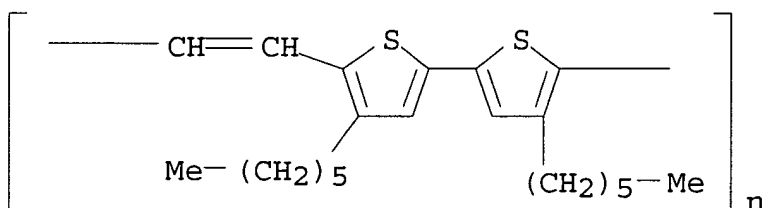
AB We have synthesized two kinds of sol. poly(thienylenevinylene) derivs. with hexyl groups. As a precursor common to these polymers, 1,2-trans-bis(3-hexylthiophene-2-yl)ethylene was synthesized. Two polymn. methods of Grignard coupling and chem. oxidative coupling were employed. The former gave a sol. polymer with a thienylene-vinylene (TV) sequence in main chain and the cast film of the polymer showed an elec. cond. of 0.4 S/cm upon an iodine doping; the latter gave a sol. polymer with a TVT sequence. Casting the polymer gave a free-standing film with a cond. of 8.7 S/cm after the iodine doping.

IT 188898-76-2P

(prepn. and properties of)

RN 188898-76-2 HCA

CN Poly[(4,4'-dihexyl[2,2'-bithiophene]-5,5'-diyl)-1,2-ethenediyl], (E)- (9CI) (CA INDEX NAME)



IT 188898-76-2P

(prepn. and properties of)

L58 ANSWER 18 OF 32 HCA COPYRIGHT 2005 ACS on STN

125:162471 Conducting polymer-protein interactions in composite films: a spectroscopic study. Agosti, E.; Zerbi, G. (Dipartimento di Chimica Industriale ed Ingegneria Chimica, Politecnico di Milano, piazza L. da Vinci 32, 20133, Milan, Italy). Synthetic Metals, 79(2), 107-113 (English) 1996. CODEN: SYMEDZ. ISSN: 0379-6779. Publisher: Elsevier.

AB Because of the peculiar physics of polyconjugated mols., the spectroscopic properties (IR and Raman) can reflect with great detail the mol. properties of such materials. The vibrational spectra then become a unique tool for the mol. characterization of the materials in their pristine and doped state or when they are

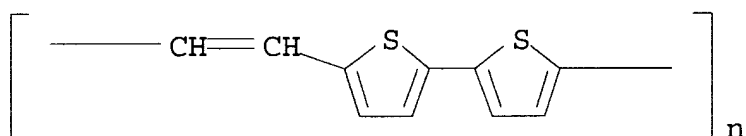
made to interact with addnl. guest mols. In this paper we describe the effect, at the mol. level, of the inclusion of proteins (glucose oxidase and peroxidase) in films of host materials of the class of polythiophenes (in the doped state). Care was taken to keep the biol. activity of the enzyme (guest) at a very reasonable level, even when embedded in the polymer host matrix. This study is aimed at contributing to the development of science and technol. of novel devices in the field of bioelectronics, in which the polyconjugated material is used as an interface between the active enzyme and the inorg. moiety which elaborates the signal.

IT 115112-66-8P

(conducting polymer-protein interactions in composite films study by spectroscopy)

RN 115112-66-8 HCA

CN Poly([2,2'-bithiophene]-5,5'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



IT 115112-66-8P

(conducting polymer-protein interactions in composite films study by spectroscopy)

L58 ANSWER 19 OF 32 HCA COPYRIGHT 2005 ACS on STN

119:272212 Femtosecond relaxation dynamics in thiophene-based polymers. Cybo-Ottone, A.; Nisoli, M.; de Silvestri, S.; Magni, V.; Zerbi, G.; Gallazzi, M.; Botta, C.; Tubino, R. (Dip. Fis., Politec., Milan, Italy). Molecular Crystals and Liquid Crystals Science and Technology, Section A: Molecular Crystals and Liquid Crystals, 236, 173-80 (English) 1993. CODEN: MCLCE9. ISSN: 1058-725X.

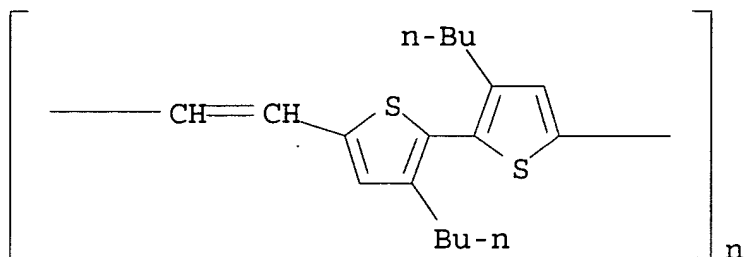
AB Ultrafast absorption measurements on newly synthesized low band gap thiophene-based polymers in film and soln. are reported using a femtosecond pump and probe technique. The ultrafast relaxation of the photoexcitation is related to exciton dynamics.

IT 148896-14-4

(photoexcitation of low band gap, ultrafast relaxation dynamics in, measurement of)

RN 148896-14-4 HCA

CN Poly[(3,3'-dibutyl[2,2'-bithiophene]-5,5'-diyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



IT 148896-14-4

(photoexcitation of low band gap, ultrafast relaxation dynamics in, measurement of)

L58 ANSWER 20 OF 32 HCA COPYRIGHT 2005 ACS on STN

119:181896 Electrically conductive polymers. Geise, H. J.; Eevers, W.; Briers, J.; Peten, C.; Van der Looy, J.; Tachelet, W.; Verreyt, G.; Jonkers, W.; Jacobs, S.; et al. (UIA, Belg.). *Chemie Magazine* (Ghent, 1975-1992), 18(6-7), 24-6 (Dutch) 1992. CODEN: CHMADY. ISSN: 0379-7651.

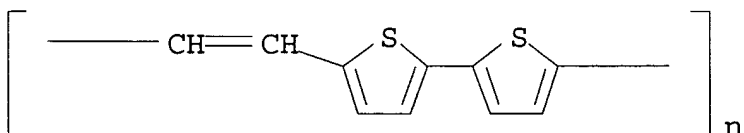
AB The history of the research in conductive polymers, esp. at the UIA in Antwerp (Belgium) is discussed. Moving from insulator to conductor and chem. structures and cond. of polyacetylene, poly-p-phenylene, poly(p-phenylenevinylene) and their dopants, as well as poly(thienylenevinylene), poly(furanylenevinylene), and poly(bithienylenevinylene) and translation to practical applications in the manuf. of LEDs were discussed.

IT 115112-66-8

(elec. conductive, research in, at UIA (Antwerp, Belgium))

RN 115112-66-8 HCA

CN Poly([2,2'-bithiophene]-5,5'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



IT 115112-66-8

(elec. conductive, research in, at UIA (Antwerp, Belgium))

L58 ANSWER 21 OF 32 HCA COPYRIGHT 2005 ACS on STN

119:181426 Electrochemical polymerization of oligothiophene derivatives and their doping properties. Onoda, M.; Iwasa, T.; Kawai, T.; Yoshino, K.; Nakayama, J.; Nakahara, H. (Dep. Electr. Eng., Himeji Inst. Technol., Himeji, Japan). *Synthetic Metals*, 55(2-3), 1632-7 (English) 1993. CODEN: SYMEDZ. ISSN: 0379-6779.

AB Prepn. of high-quality conducting polymers by the electrochem. polymn. of trans-(thiophen-2-yl)-(2,2':5'2''-terthiophen-5-yl)ethylene (I) and trans-(2,2'-bithiophen-5-yl)-(2,2':5'2''-terthiophen-5-yl)ethylene (II) was carried out. Evidence for electrochem. p-type doping of I homopolymer and II homopolymer was obtained from in situ measurements of the cyclic voltammetry, optical absorption spectroscopy, and ESR. These results were tentatively explained in terms of a conformation change in the mol. structure, such as a difference in the torsion angle between neighboring thiophene rings due to the introduction of vinylene groups and were discussed in terms of polaron and/or bipolaron model.

IT 139939-22-3P

(prepn. and doping properties of)

RN 139939-22-3 HCA

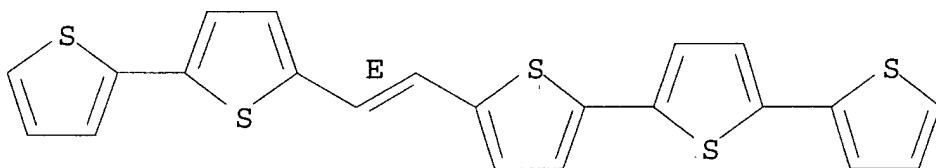
CN 2,2':5',2''-Terthiophene, 5-(2-[2,2'-bithiophen]-5-ylethenyl)-, (E)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 139939-21-2

CMF C22 H14 S5

Double bond geometry as shown.



IT 139939-22-3P

(prepn. and doping properties of)

L58 ANSWER 22 OF 32 HCA COPYRIGHT 2005 ACS on STN

119:96661 Femtosecond transient absorption saturation in poly(alkylthiophenevinylenes). Nisoli, M.; Cybo-Ottone, A.; De Silvestri, S.; Magni, V.; Tubino, R.; Botta, C.; Musco, A. (Cent. Elettron. Quantistica Strum. Elettron., Politec., Milan, Italy). Physical Review B: Condensed Matter and Materials Physics, 47(16), 10881-4 (English) 1993. CODEN: PRBMDO. ISSN: 0163-1829.

AB Ultrafast transient absorption measurements on solns. of poly(3-decyl-thiophene-2,5-diyl-vinylene), poly(3,4-dibutyl-thiophene-2,5-diyl-vinylene), and poly(3,3'-dibutyl-2,2'-dithiophene-5,5'-diyl-vinylene) are presented. In these polymers, a stiffening of the thiophenic backbone is accomplished by inserting intrachain double bonds (vinyl groups). The transient absorption data seem to be consistent with the formation and decay of self-trapped excitons.

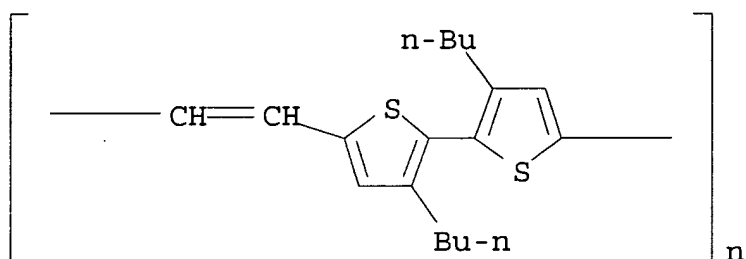
The bleaching decays are independent of the size and location of the side groups, while they are sensitive to the backbone rigidity. A random-walk process on a finite polymer chain with recombination centers at the end is proposed to contribute to the relaxation mechanism of self-trapped excitons.

IT 148896-14-4P

(ultrafast transient absorption satn. and formation and decay of self-trapped excitons in)

RN 148896-14-4 HCA

CN Poly[(3,3'-dibutyl[2,2'-bithiophene]-5,5'-diyl)-1,2-ethenediyl]
(9CI) (CA INDEX NAME)



IT 148896-14-4P

(ultrafast transient absorption satn. and formation and decay of self-trapped excitons in)

L58 ANSWER 23 OF 32 HCA COPYRIGHT 2005 ACS on STN

118:178791 Electrochemical polymerization of oligothiophene derivatives and their doping properties. Onoda, Mitsuyoshi; Iwasa, Toshinori; Kawai, Tsuyoshi; Nakayama, Juzo; Nakahara, Hiroo; Yoshino, Katsumi (Fac. Eng., Himeji Inst. Technol., Himeji, 671-22, Japan). Journal of the Electrochemical Society, 140(2), 397-402 (English) 1993. CODEN: JESOAN. ISSN: 0013-4651.

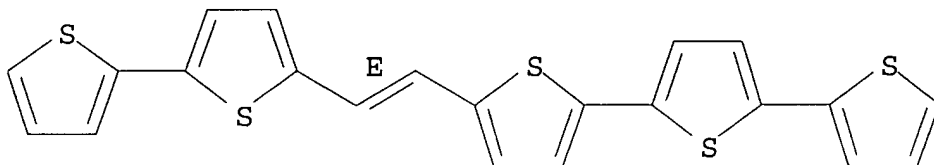
AB Prepn. of high quality conducting poly(trans-TTTE) and poly(trans-BTTTE) by the electrochem. polymn. of oligothiophene derivs. such as trans-1-(thiophene-2-yl)-2-(2,2':5',2''-terthiophene-5-yl)ethylene, trans-TTTE, and trans-1-(2,2'-bithiophene-5-yl)-2-(2,2':5',2''-terthiophene-5-yl)ethylene, trans-BTTTE, were carried out. Evidence for electrochem. p-type doping of poly(trans-TTTE) and poly(trans-BTTTE) is obtained from in situ measurements of the cyclic voltammetry, optical absorption spectroscopy, and ESR and compared with the data of polythiophene. These results are tentatively explained in terms of a conformation change in the mol. structure, such as a difference in the torsion angle between neighboring thiophene rings due to the introduction of vinylene groups and are discussed in terms of polaron and/or bipolaron model. The bipolaron levels in the gap states appear upon p-type doping and the electronic band scheme of poly(trans-TTTE) and poly(trans-BTTTE) is discussed.

IT 139939-22-3
(electrochem. prepn. and electrochem. redox reactions of)
RN 139939-22-3 HCA
CN 2,2':5',2''-Terthiophene, 5-(2-[2,2'-bithiophen]-5-ylethenyl)-,
(E)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 139939-21-2
CMF C22 H14 S5

Double bond geometry as shown.



IT 139939-22-3
(electrochem. prepn. and electrochem. redox reactions of)

L58 ANSWER 24 OF 32 HCA COPYRIGHT 2005 ACS on STN
118:39527 The design of new copolymers for .chi.(3) [third-order
susceptibility] applications. Spangler, Charles W.; Liu, Pei Kang;
Hall, Tom J.; Polis, David W.; Sapochak, Linda S.; Dalton, Larry R.
(Dep. Chem., North. Illinois Univ., De Kalb, IL, 60115, USA).
Polymer, 33(18), 3937-41 (English) 1992. CODEN: POLMAG. ISSN:
0032-3861.

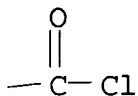
AB Copolyamides in which oligomeric segments of poly(2,5-
thienylenevinylene) (I), alternating with satd. spacer units from
dodecanedioyl dichloride and hexamethylenediamine, were prepd. and
cast as optical-quality films for nonlinear optical (NLO)
applications. The design of oligomeric I monomers and preliminary
NLO characterization of the copolymers were described.

IT 133842-89-4P 133842-91-8P
(prepn. and nonlinear optical properties of)
RN 133842-89-4 HCA
CN Dodecanedioyl dichloride, polymer with 1,6-hexanediamine and
5,5'-(2,5-thiophenediyl-di-2,1-ethenediyl)bis[2-thiophenecarbonyl
chloride] (9CI) (CA INDEX NAME)

CM 1

CRN 133842-88-3
CMF C18 H10 Cl2 O2 S3

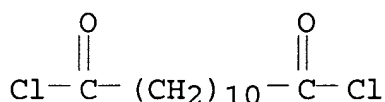
PAGE 1-B



CM 2

CRN 4834-98-4

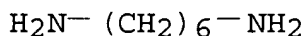
CMF C12 H20 C12 O2



CM 3

CRN 124-09-4

CMF C6 H16 N2



IT 133842-89-4P 133842-91-8P

(prepn. and nonlinear optical properties of)

L58 ANSWER 25 OF 32 HCA COPYRIGHT 2005 ACS on STN

117:221885 In situ absorption spectra and ESR measurements of poly(trans-(2,2'-bithiophene-5-yl)-(2,2':5',2"-terthiophene-5-yl)ethylene) during electrochemical doping. [Erratum to document cited in CA116(16):161059e]. Iwasa, Toshinori; Kawai, Tsuyoshi; Onoda, Mitsuyoshi; Nakayama, Juzo; Nakahara, Hiroo; Yoshino, Katsumi (Fac. Eng., Osaka Univ., Suita, Japan). Journal of the Physical Society of Japan, 61(6), 2160 (English) 1992. CODEN: JUPSAU. ISSN: 0031-9015.

AB A spelling error in an author name has been cor. The error was reflected in the abstr. and the index entries.

IT 139939-22-3

(electrochem. prepn. and doping and spectral anal. of (Erratum))

RN 139939-22-3 HCA

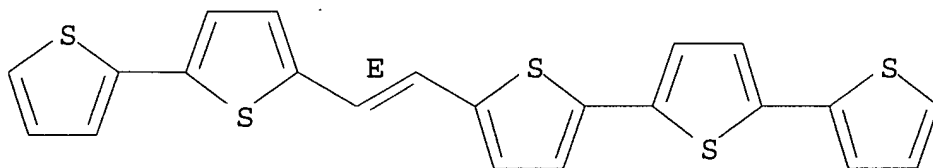
CN 2,2':5',2''-Terthiophene, 5-(2-[2,2'-bithiophen]-5-ylethenyl)-, (E)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 139939-21-2

CMF C22 H14 S5

Double bond geometry as shown.



IT 139939-22-3

(electrochem. prepn. and doping and spectral anal. of (Erratum))

L58 ANSWER 26 OF 32 HCA COPYRIGHT 2005 ACS on STN

116:256455 Theoretical investigations on poly[bis(pyrrylene)vinylene] and poly[bis(thienylene)vinylene] and chemically related polymers. Otto, P. (Theor. Chem. Dep., Friedrich-Alexander-Univ., Erlangen, D-8520, Germany). Synthetic Metals, 47(1), 65-75 (English) 1992. CODEN: SYMEDZ. ISSN: 0379-6779.

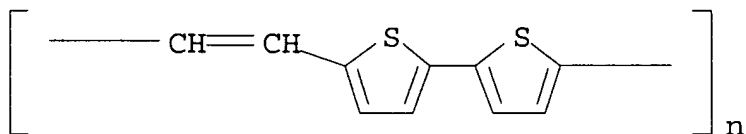
AB Ab initio Hartree-Fock crystal orbital calcns. were reported for the neutral insulating form of poly(pyrrylene-vinylene) and poly(thienylene-vinylene) and chem. related systems. The effect of increasing either the no. of heterocycles or vinylene units on the energy band structure and the fundamental band gap were investigated. The gap could not be decreased by enlarging the no. of either one of the subunits in the elementary cell. Pilot calcns. on the doped systems were also reported.

IT 115112-66-8 141704-56-5 141704-57-6
141704-60-1

(ab initio energy band structure calcn. of)

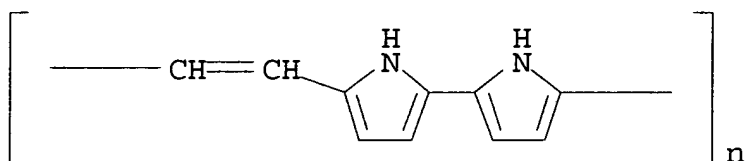
RN 115112-66-8 HCA

CN Poly([2,2'-bithiophene]-5,5'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)

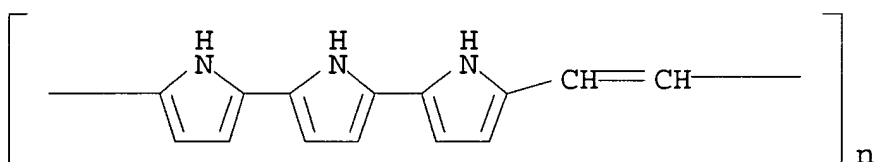


RN 141704-56-5 HCA

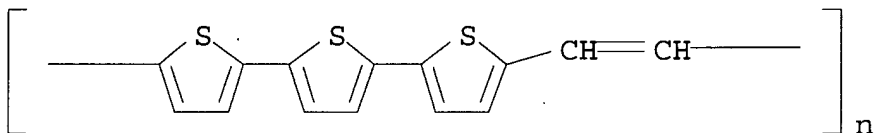
CN Poly([2,2'-bi-1H-pyrrole]-5,5'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



RN 141704-57-6 HCA
 CN Poly([2,2':5',2''-ter-1H-pyrrole]-5,5''-diyl-1,2-ethenediyl) (9CI)
 (CA INDEX NAME)



RN 141704-60-1 HCA
 CN Poly([2,2':5',2''-terthiophene]-5,5''-diyl-1,2-ethenediyl) (9CI)
 (CA INDEX NAME)



IT 115112-66-8 141704-56-5 141704-57-6
 141704-60-1
 (ab initio energy band structure calcn. of)

L58 ANSWER 27 OF 32 HCA COPYRIGHT 2005 ACS on STN

116:161059 In situ absorption spectra and ESR measurements of poly(trans-(2,2'-bithiophene-5-yl)-(2,2':5',2''-terthiophene-5-yl)ethylene) during electrochemical doping. Iwasa, Toshinori; Kawai, Tsuyoshi; Onoda, Mitsuyoshi; Nakayama, Jyunzo; Nakahara, Hiroo; Yoshino, Katsumi (Fac. Eng., Osaka Univ., Suita, Japan). Journal of the Physical Society of Japan, 61(2), 666-73 (English) 1992. CODEN: JUPSAU. ISSN: 0031-9015.

AB The electrochem., optical and magnetic properties of poly(trans-(2,2'-bithiophene-5-yl)-(2,2':5',2''-terthiophene-5-yl)ethylene), PBTTE, during electrochem. p-type doping were investigated in comparison with those of poly(trans-bis(thiophene-2-yl)ethylene), trans-PTE, by cyclic voltammetry, in situ optical absorption spectra, and ESR measurements. The band gap energy of PBTTE was 2.0 eV and about 0.1 eV larger than that of trans-PTE. This result can be interpreted in terms of a change in the torsion

angle between neighboring thiophene rings. The spin susceptibility detd. by ESR measurements increased from 2.4×10^{-8} to 4.4×10^{-6} emu/mol upon doping and then decreased slightly. Changes in optical absorption spectra and ESR spectra suggest the formation of polaron and/or bipolaron upon doping. The spin d. evaluated from the spin susceptibility was inconsistent with the dopant d. I.e., even at lightly doped state the newly developed species turn into p-type spinless bipolarons.

IT 139939-22-3

(electrochem. prepn. and doping and spectral anal. of)

RN 139939-22-3 HCA

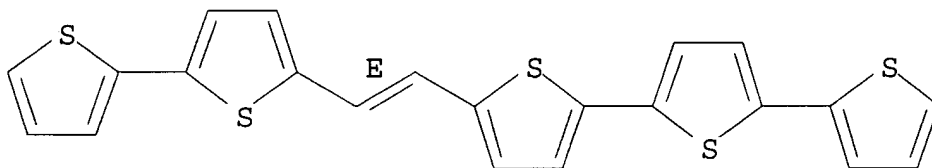
CN 2,2':5',2''-Terthiophene, 5-(2-[2,2'-bithiophen]-5-ylethenyl)-, (E)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 139939-21-2

CMF C22 H14 S5

Double bond geometry as shown.



IT 139939-22-3

(electrochem. prepn. and doping and spectral anal. of)

L58 ANSWER 28 OF 32 HCA COPYRIGHT 2005 ACS on STN

115:265326 Optical properties of electrically conducting films formed by anodic oxidation of 1,2-di(2-thienyl)ethylene. Zerbino, J. O.; Plieth, W. J.; Kossmehl, G. (Inst. Phys. Chem., Freien Univ. Berlin, Berlin, 1000/3, Germany). Journal of Applied Electrochemistry, 21(10), 935-40 (English) 1991. CODEN: JAELBJ. ISSN: 0021-891X.

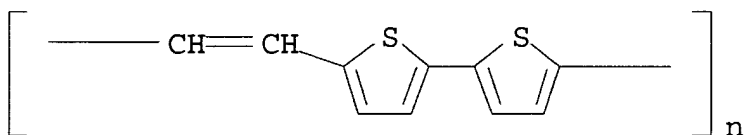
AB Poly(2,2'-bithienyl-5,5'-divinylene) (PBTv) films formed by anodic oxidn. of 2 .times. 10⁻³M solns. of trans-1,2-di-2-thienylethylene (trans-DTE) in acetonitrile were studied by voltammetry and ellipsometry. For the doped and undoped films, refraction indexes and absorption coeffs. in the wavelength range of 400-800 nm were detd. as functions of thickness. Differences in the structure were found depending on the height of the oxidn. potential. A decrease in thickness by doping was obsd. and is discussed in terms of a possible cis-trans isomerization. The optical spectrum of the undoped polymer showed a high degree of .pi.-electron delocalization (high "degree of conjugation").

IT 115112-66-8, Poly(2,2'-bithienyl-5,5'-diylvinylene)

(electrochem. prepn. and ellipsometry and voltammetry and visible spectrum of)

RN 115112-66-8 HCA

CN Poly([2,2'-bithiophene]-5,5'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



IT 115112-66-8, Poly(2,2'-bithienyl-5,5'-diylvinylene)
(electrochem. prepn. and ellipsometry and voltammetry and visible spectrum of)

L58 ANSWER 29 OF 32 HCA COPYRIGHT 2005 ACS on STN

114:237134 New copolymers for nonlinear optics applications which incorporate delocalized π -electron subunits with well defined conjugation lengths. Spangler, Charles W.; Hall, Tom J.; Havelka, Kathleen O.; Polis, David W.; Sapochak, Linda S.; Dalton, Larry R. (Dep. Chem., North. Illinois Univ., DeKalb, IL, 60115, USA). Proceedings of SPIE-The International Society for Optical Engineering, 1337(Nonlinear Opt. Prop. Org. Mater. 3), 125-31 (English) 1990. CODEN: PSISDG. ISSN: 0277-786X.

AB Long conjugation sequences in electroactive materials may not be a stringent requirement for high 3rd-order nonlinear optical (NLO) activity. Since long conjugation lengths in these materials often make them difficult to process, the resulting insoly. often precludes the formation of optical quality films for device applications. The incorporation of shorter electroactive segments alternating with flexible non-active spacers may allow high NLO activity coupled with good optical film forming capability. Several approaches to copolymer design are presented which incorporate various electroactive oligomer segments with well-defined conjugation lengths. The control one obtains in this approach allows the design of sharp optical windows, and the ability to tailor absorption characteristics to particular frequencies.

IT 133842-89-4 133842-91-8
(nonlinear optical activity of film of)

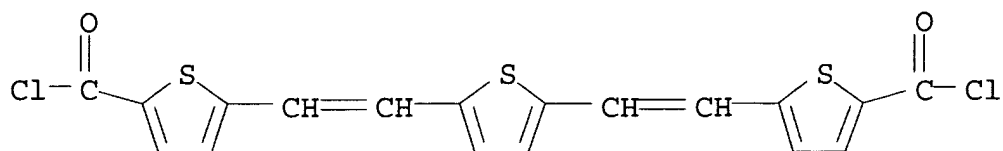
RN 133842-89-4 HCA

CN Dodecanedioyl dichloride, polymer with 1,6-hexanediamine and 5,5'-(2,5-thiophenediyl-di-2,1-ethenediyl)bis[2-thiophenecarbonyl chloride] (9CI) (CA INDEX NAME)

CM 1

CRN 133842-88-3

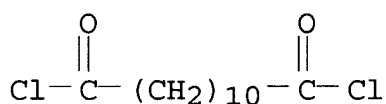
CMF C18 H10 C12 O2 S3



CM 2

CRN 4834-98-4

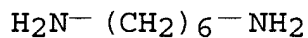
CMF C12 H20 Cl2 O2



CM 3

CRN 124-09-4

CMF C6 H16 N2



RN 133842-91-8 HCA

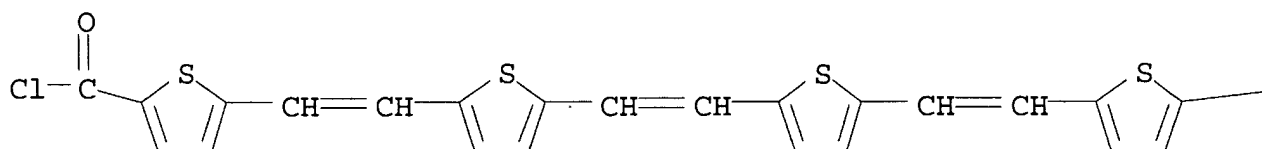
CN Dodecanedioyl dichloride, polymer with 5,5'-[1,2-ethenediylbis(5,2-thiophenediyl-2,1-ethenediyl)]bis[2-thiophenecarbonyl chloride] and 1,6-hexanediamine (9CI) (CA INDEX NAME)

CM 1

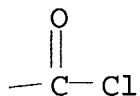
CRN 133842-90-7

CMF C24 H14 Cl2 O2 S4

PAGE 1-A



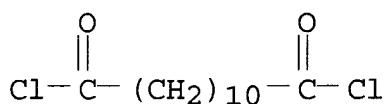
PAGE 1-B



CM 2

CRN 4834-98-4

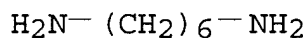
CMF C12 H20 C12 O2



CM 3

CRN 124-09-4

CMF C6 H16 N2



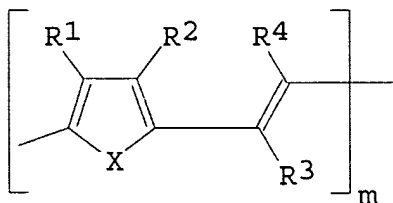
IT 133842-89-4 133842-91-8

(nonlinear optical activity of film of)

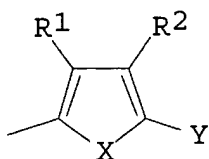
L58 ANSWER 30 OF 32 HCA COPYRIGHT 2005 ACS on STN

109:191098 Neutral and electrically conductive poly(heterocyclic vinylenes) and their preparation. Jen, Kwan Yue Alex; Elsenbaumer, Ronald Lee; Shacklette, Lawrence W. (Allied Corp., USA). PCT Int. Appl. WO 8800954 A1 19880211, 69 pp. DESIGNATED STATES: W: JP; RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1987-US1688 19870716. PRIORITY: US 1986-894172 19860807; US 1987-70464 19870707.

GI



I



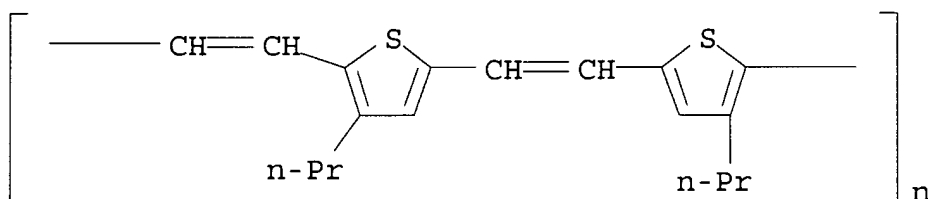
II

AB The title homopolymers or block or random copolymers (e.g., I) having II repeating units [$Y = R_3C:CR_4$; $R_1, R_2, R_3, R_4 = H$, (un)substituted alkyl, cycloalkyl, (cyclo)alkenyl, (un)substituted aryl, alkoxy, alkanoyl, alkylthio, aryloxy, alkylthioalkyl, alkynyl, substituted amino, CO_2H , halogen, NO_2 , CN , SO_3H , alkoxypolyoxyalkylene, etc.; R_1+R_2 or R_3+R_4 together may complete an arom. or alicyclic 3- to 7-membered ring which may contain O, S, SO_2 , N, or SO; $X = S, O, Se, NR_5, PR_5$; $R_5 = H, (alkyl)aryl, (aryl)alkyl$] are prepd. from sulfonium-contg. monomers and doped with electron acceptors to give elec. conductive polymers. Thus, 2,5-bis(chloromethyl)thiophene (prepd. from thiophene, 37% $HCHO$, and concd. HCl) reacted with Me_2S in $MeOH$ to give 2,5-bis(dimethylsulfoniomethyl)thiophene chloride (III), which was dissolved in H_2O , treated with cooled (0.degree.) aq. $NaOH$, stirred, and neutralized to give III polymer. Gentle heating III polymer at 40-65.degree. in vacuo gave poly(2,5-thienylenevinylene) (IV) film with golden luster, but rapid heating at 90-100.degree. formed a golden lustrous foam. Doped IV films showed elec. cond. 10-10-102 S/cm.

IT 665015-51-0P 665015-56-5P 666173-92-8P
(manuf. of, dopable, for elec. cond.)

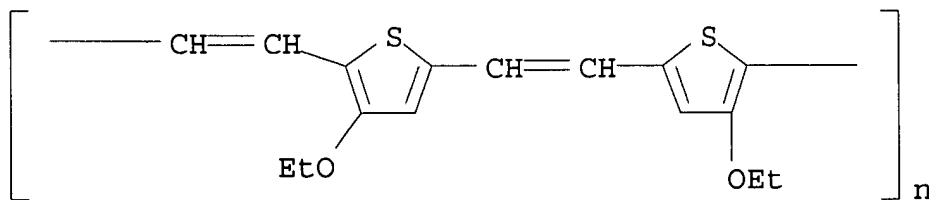
RN 665015-51-0 HCA

CN Poly[(3-propyl-2,5-thiophenediyl) [(1E)-1,2-ethenediyl] (4-propyl-2,5-thiophenediyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



RN 665015-56-5 HCA

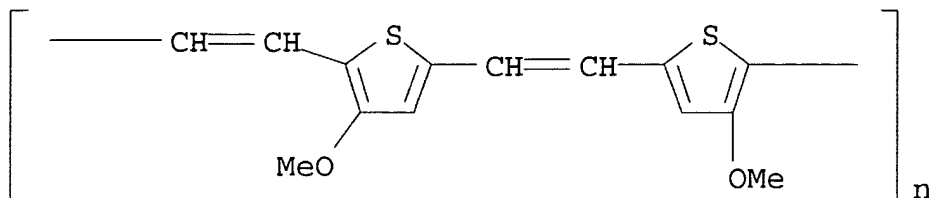
CN Poly[(3-ethoxy-2,5-thiophenediyl) [(1E)-1,2-ethenediyl] (4-ethoxy-2,5-thiophenediyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



RN 666173-92-8 HCA

CN Poly[(3-methoxy-2,5-thiophenediyl) - (1E)-1,2-ethenediyl (4-methoxy-2,5-

thiophenediyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



IT 665015-51-0P 665015-56-5P 666173-92-8P
(manuf. of, dopable, for elec. cond.)

L58 ANSWER 31 OF 32 HCA COPYRIGHT 2005 ACS on STN

109:130013 The optical, electrochemical and structure/property relationships of poly(heteroaromatic vinylenes). Jen, Kwan Yue; Jow, Richard; Shacklette, L. W.; Maxfield, M.; Eckhardt, Helmut; Elsenbaumer, Ronald L. (Polym. Lab., Allied-Signal, Inc., Morristown, NJ, 07960, USA). Molecular Crystals and Liquid Crystals, Volume Date 1987, 160, 69-77 (English) 1988. CODEN: MCLCA5. ISSN: 0026-8941.

AB Prepn. of poly(heteroarom. vinylenes) based on thiophene or furan resulted in polymers with high elec. cond. when doped with I, FeCl₃, NOSbF₆ or NaPF₆. Alkyl substitution on the ring of poly(thiophenevinylene) had little effect on the elec. properties of the polymer, but the presence of an ethoxy substituent significantly decreased its ionization potential and band gap. Replacing the thiophene ring with a furan ring resulted in a further redn. in the ionization potential of the polymer.

IT 116461-87-1 116461-89-3 116461-91-7
116463-20-8 116463-21-9 116463-22-0
(elec. cond. of doped)

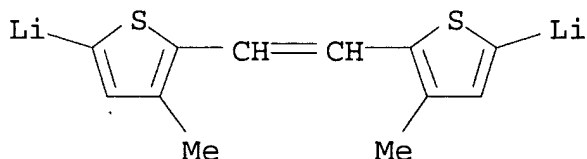
RN 116461-87-1 HCA

CN Lithium, [.mu.-[1,2-ethenediylbis(4-methyl-5,2-thiophenediyl)]]di-, polymer with 1,2-dichloroethene (9CI) (CA INDEX NAME)

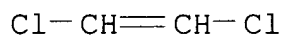
CM 1

CRN 116461-86-0

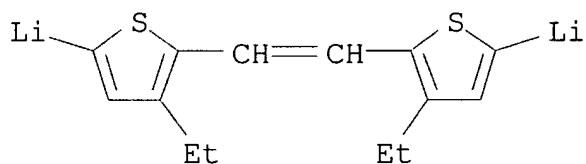
CMF C12 H10 Li2 S2



CM 2

CRN 540-59-0
CMF C2 H2 Cl2RN 116461-89-3 HCA
CN Lithium, [.mu.-[1,2-ethenediylbis(4-ethyl-5,2-thiophenediyl)]]di-,
polymer with 1,2-dichloroethene (9CI) (CA INDEX NAME)

CM 1

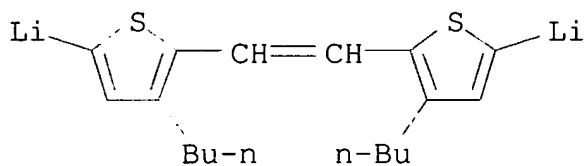
CRN 116461-88-2
CMF C14 H14 Li2 S2

CM 2

CRN 540-59-0
CMF C2 H2 Cl2RN 116461-91-7 HCA
CN Lithium, [.mu.-[1,2-ethenediylbis(4-butyl-5,2-thiophenediyl)]]di-,
polymer with 1,2-dichloroethene (9CI) (CA INDEX NAME)

CM 1

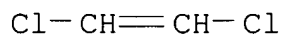
CRN 116461-90-6
CMF C18 H22 Li2 S2



CM 2

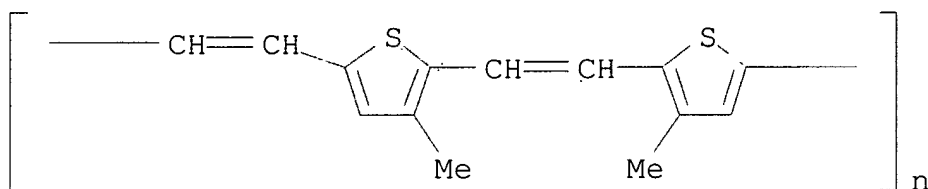
CRN 540-59-0

CMF C2 H2 C12



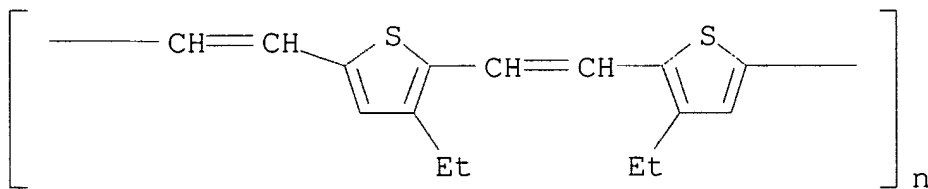
RN 116463-20-8 HCA

CN Poly[(4-methyl-2,5-thiophenediyl)-1,2-ethenediyl(3-methyl-2,5-thiophenediyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



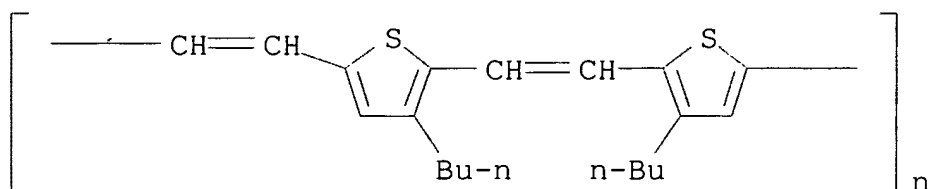
RN 116463-21-9 HCA

CN Poly[(4-ethyl-2,5-thiophenediyl)-1,2-ethenediyl(3-ethyl-2,5-thiophenediyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



RN 116463-22-0 HCA

CN Poly[(4-butyl-2,5-thiophenediyl)-1,2-ethenediyl(3-butyl-2,5-thiophenediyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



IT 116461-87-1 116461-89-3 116461-91-7
 116463-20-8 116463-21-9 116463-22-0
 (elec. cond. of doped)

L58 ANSWER 32 OF 32 HCA COPYRIGHT 2005 ACS on STN

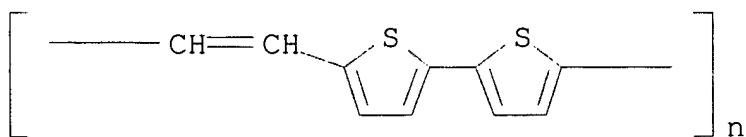
109:38585 Electrochemical synthesis and optical analysis of poly[(2,2'-dithienyl)-5,5'-diylvinylene]. Martinez, Maria; Reynolds, John R.; Basak, Sanjay; Black, Douglas A.; Marynick, Dennis S.; Pomerantz, Martin (Dep. Chem., Univ. Texas, Arlington, TX, 76019, USA). Journal of Polymer Science, Part B: Polymer Physics, 26(4), 911-20 (English) 1988. CODEN: JPBPEM. ISSN: 0887-6266.

AB The electrochem. synthesis of BF₄--doped poly[(2,2'-dithienyl)-5,5'-diylvinylene] (I) was accomplished and provided coppery-black free-standing films with a room-temp. 4-probe cond. as high as 15 (.OMEGA. cm)⁻¹. The cond. and morphol. of the films were strongly dependent on synthetic conditions. The oxidized form of I was not air stable, as evidenced by a rapid, 3-order drop in the magnitude of the cond. Optoelectrochem. expts. demonstrated that bipolarons were the main charge-carrying species in conductive I and allowed their evolution to be followed as a function of oxidn.

IT 115112-66-8
 (electrochem. prepn. and optical anal. of tetrafluoroborate-doped)

RN 115112-66-8 HCA

CN Poly([2,2'-bithiophene]-5,5'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



IT 115112-66-8
 (electrochem. prepn. and optical anal. of tetrafluoroborate-

=> d 169 1-6 cbib abs hitstr hitind

L69 ANSWER 1 OF 6 HCA COPYRIGHT 2005 ACS on STN

131:6335 Heat-resistant organic solvent-soluble poly(substituted biphenylenevinylenes) and their manufacture, their luminous and **liquid crystal** compositions, and their use as electronic products. Yamamoto, Ryuichi (Foundation for Scientific Technology Promotion, Japan). Jpn. Kokai Tokkyo Koho JP 11140168 A2 19990525 Heisei, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-316655 19971104.

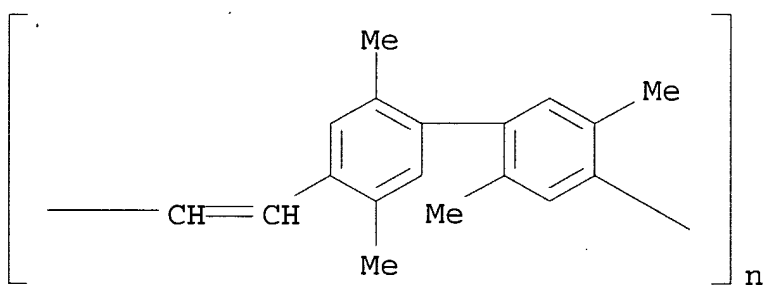
AB Title polymers are composed of (p-Q1CR5:CR6-p-Q2)n [Q1, Q2 = (2,5-substituted) 1,4-phenylene; R5, R6 = H, alkyl, (un)substituted Ph; not all substituents are H; n = d.p.] and are manufd. by dehalogenative coupling reaction of X-p-Q1CR5:CR6-p-Q2X (Q1, Q2, R5, R6 = same as above; X = halo) in the presence of metal or metal compds. Thus, 1,2-bis(4-bromo-2,5-dimethylphenyl)ethene (prepn. given) was polymd. in DMF in the presence of bis(1,5-cyclooctadiene)nickel, 2,2'-bipyridyl, and 1,5-cyclooctadiene to give a polymer, which was sol. in CHCl₃, THF, PhMe, etc., and showed fluorescent quantum yield 51% and good heat resistance.

IT 210753-98-3P 210754-13-5P

(manuf. of poly(substituted biphenylenevinylenes) having heat resistance and org.-solvent soly. for electronic products)

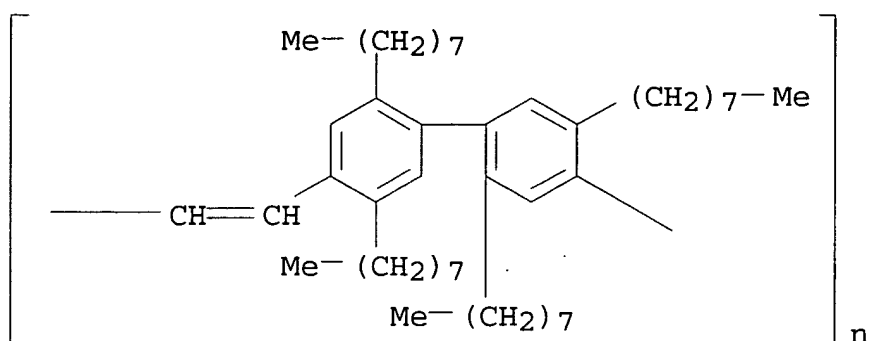
RN 210753-98-3 HCA

CN Poly[(2,2',5,5'-tetramethyl[1,1'-biphenyl]-4,4'-diyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



RN 210754-13-5 HCA

CN Poly[(2,2',5,5'-tetraoctyl[1,1'-biphenyl]-4,4'-diyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)

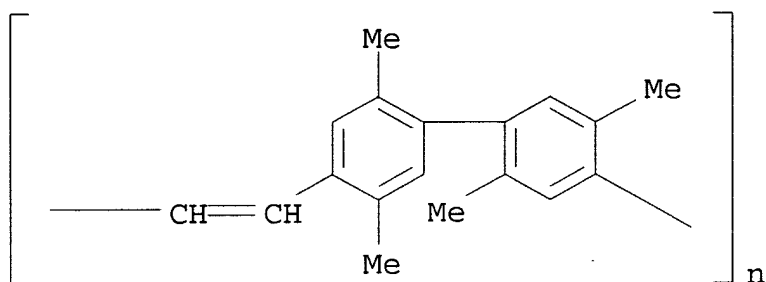


- IC ICM C08G061-02
ICS C09K011-06; C09K019-38; G02F001-13
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 25, 35, 73, 75
- ST biphenylenevinylene polymer manuf heat resistance; org solvent soly
biphenylenevinylene polymer manuf; bromodimethylethene coupling
reaction nickel polymn catalyst; luminous **liq**
cryst biphenylenevinylene polymer; electronic part
biphenylenevinylene polymer
- IT Electric apparatus
Fluorescent substances
Heat-resistant materials
Liquid crystals, polymeric
Polymerization catalysts
(manuf. of poly(substituted biphenylenevinylenes) having heat
resistance and org.-solvent soly. for electronic products)
- IT 210753-96-1P **210753-98-3P** 210754-11-3P
210754-13-5P 210754-17-9P 210754-19-1P 224312-50-9P
225640-56-2P
(manuf. of poly(substituted biphenylenevinylenes) having heat
resistance and org.-solvent soly. for electronic products)
- L69 ANSWER 2 OF 6 HCA COPYRIGHT 2005 ACS on STN
129:149314 Preparation of new poly(phenylene vinylene) type polymers by
Ni-promoted polycondensation and their photoluminescent properties.
Yamamoto, Takakazu; Xu, Yuding; Koinuma, Hideomi (Research
Laboratory of Resources Utilization, Tokyo Institute of Technology,
Yokohama, 226-8503, Japan). Chemistry Letters (7), 613-614
(English) 1998. CODEN: CMLTAG. ISSN: 0366-7022. Publisher:
Chemical Society of Japan.
- AB Poly(p-phenylenevinylene) type polymers having biphenyl-4,4'-diyl
units were prep'd. by organometallic polycondensation. They are
photoluminescent and electrochem. active, and are considered to take
a stacked and **liq. cryst.** structure depending on
the substituent.
- IT **210753-98-3P 210754-03-3P 210754-08-8P**

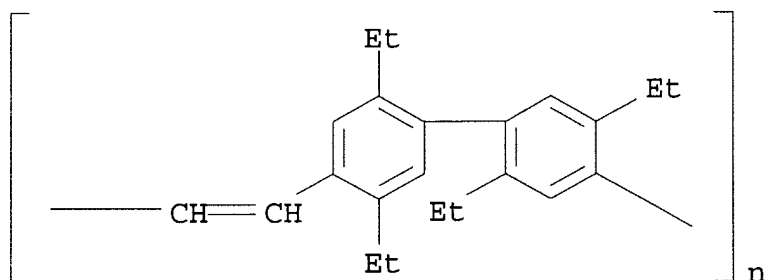
210754-13-5P

(prepn. and photoluminescent properties of)

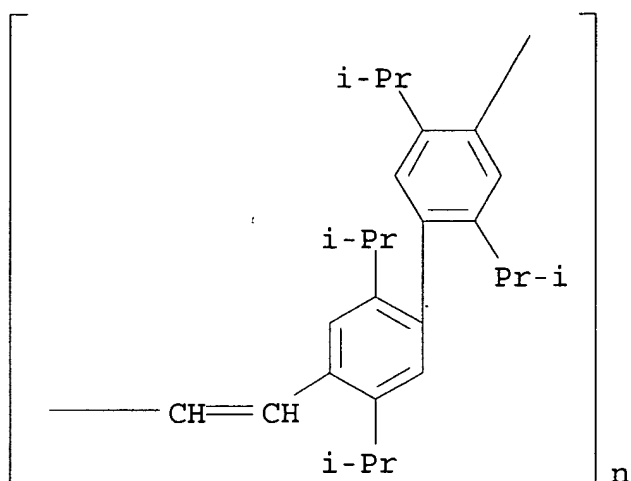
RN 210753-98-3 HCA
 CN Poly[(2,2',5,5'-tetramethyl[1,1'-biphenyl]-4,4'-diyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



RN 210754-03-3 HCA
 CN Poly[(2,2',5,5'-tetraethyl[1,1'-biphenyl]-4,4'-diyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)

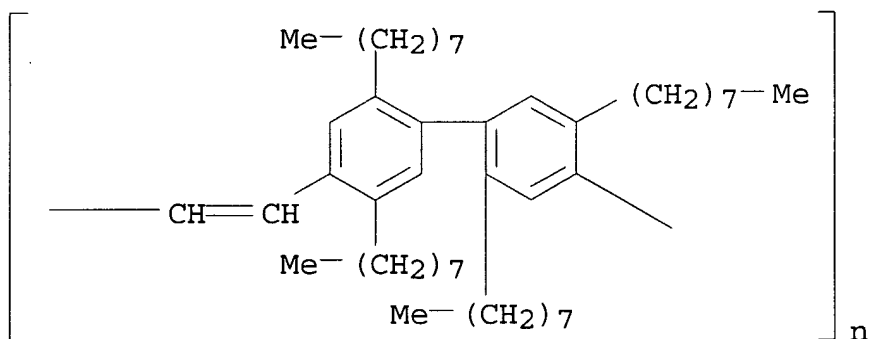


RN 210754-08-8 HCA
 CN Poly[[2,2',5,5'-tetrakis(1-methylethyl)[1,1'-biphenyl]-4,4'-diyl]-1,2-ethenediyl] (9CI) (CA INDEX NAME)



RN 210754-13-5 HCA

CN Poly[(2,2',5,5'-tetraoctyl[1,1'-biphenyl]-4,4'-diyl)-1,2-ethenediyl]
(9CI) (CA INDEX NAME)



CC 35-5 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 73, 75

ST biphenyldiyl contg polyphenylenevinylene photoluminescence;
liq crystal structure biphenyldiyl contg
polyphenylenevinylene

IT **Liquid crystals**, polymeric
Luminescence

(prepn. and photoluminescent properties of
poly(phenylenevinylene) contg. biphenyldiyl units)

IT 70221-26-0P 210753-96-1P **210753-98-3P** 210754-01-1P
210754-03-3P 210754-06-6P **210754-08-8P**
210754-11-3P **210754-13-5P** 210754-17-9P 210754-19-1P
210754-22-6P 210754-23-7P 210754-26-0P
(prepn. and photoluminescent properties of)

L69 ANSWER 3 OF 6 HCA COPYRIGHT 2005 ACS on STN

115:30050 Structural modifications of poly(1,4-phenylenevinylene) to soluble, fusible, **liquid-crystalline** products.

Martelock, Heidi; Greiner, Andreas; Heitz, Walter (Zent.

Materialwiss., Philipps-Univ., Marburg, 3550, Germany).

Makromolekulare Chemie, 192(4), 967-79 (English) 1991. CODEN:

MACEAK. ISSN: 0025-116X.

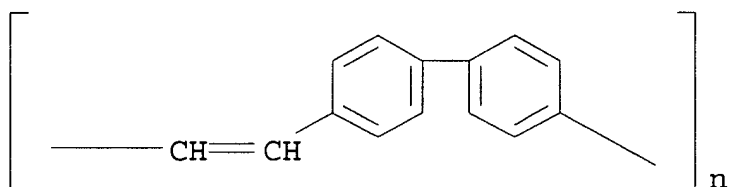
AB The synthesis, soly., and thermal behavior of sol., fusible, **liq.-cryst.** derivs. of poly(1,4-phenylenevinylene) (I) was described. The improved soly. and fusibility were accomplished by reducing interchain interactions without change of the rigid rod-like character. The interchain interactions were lowered by decreasing the structural regularity of the repeating units. The synthesis of derivs. of I was accomplished by the Pd-catalyzed coupling of dihaloarenes and C₂H₄ to avoid cis-vinylene units. Irreversible crosslinking was obsd. from fusible products on annealing above the softening point.

IT 32032-44-3P 134332-45-9P

(prepn. and thermal properties of)

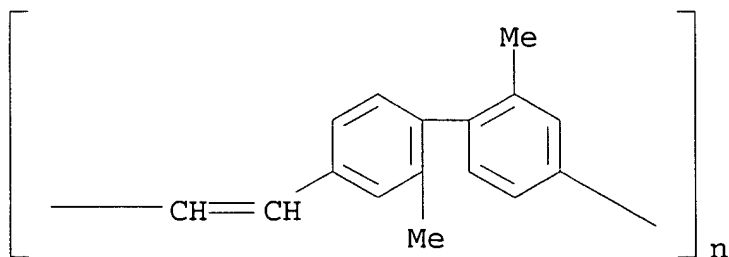
RN 32032-44-3 HCA

CN Poly([1,1'-biphenyl]-4,4'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



RN 134332-45-9 HCA

CN Poly[(2,2'-dimethyl[1,1'-biphenyl]-4,4'-diyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



CC 35-7 (Chemistry of Synthetic High Polymers)

ST polyphenylenevinylene deriv **liq cryst**

IT **Liquid crystals**

(poly(arylenevinylenes), prepn. and thermal properties of)

IT Crosslinking

Polymer degradation

(thermal, of poly(arylenevinylenes), **liq.****crystallinity** in relation to)

IT **32032-44-3P** 69235-25-2P 117496-99-8P 117501-02-7P
 134332-30-2P 134332-31-3P 134332-32-4P 134332-33-5P
 134332-34-6P 134332-35-7P 134332-36-8P 134332-37-9P
 134332-38-0P **134332-45-9P** 134354-44-2P 134354-45-3P
 134354-46-4P 134685-90-8P 134685-91-9P
 (prepn. and thermal properties of)

L69 ANSWER 4 OF 6 HCA COPYRIGHT 2005 ACS on STN

112:119530 Polycondensation catalyzed by palladium complex. 2.

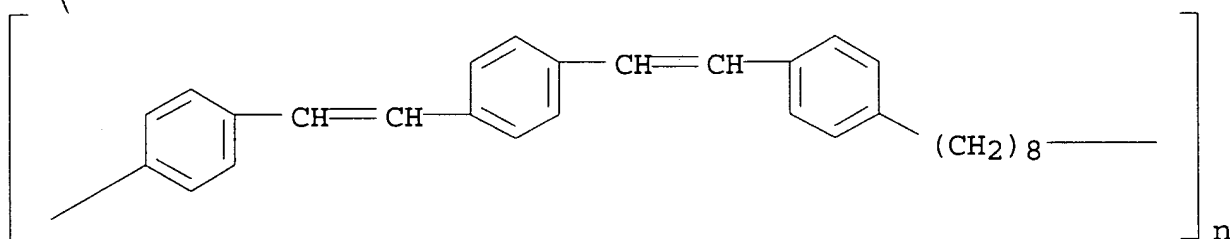
Synthesis and characterization of main-chain type **liquid-crystalline** polymers having distyrylbenzene mesogenic groups. Suzuki, Masato; Lim, Jong Chan; Saegusa, Takeo (Dep. Synth. Chem., Kyoto Univ., Kyoto, 606, Japan). *Macromolecules*, 23(6), 1574-9 (English) 1990. CODEN: MAMOBX. ISSN: 0024-9297.

AB Polymers having trans,trans-distyrylbenzene units in the main chain were synthesized by the Heck reaction of p-(or m-)divinylbenzene with bis(halobenzene) derivs. that have a flexible chain such as a longer alkyl or polyoxyethylene group. The polymer exhibited thermotropic **liq. crystallinity**, which was characterized by using DSC and an optical microscope with cross polarizers. Smectic textures were obsd. in the mesophases of polyester and polyethers derived from m-divinylbenzene.

IT **125439-66-9P**
 (prepn. and **liq.-cryst.** properties of)

RN 125439-66-9 HCA

CN Poly(1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,8-octanedyl) (9CI) (CA INDEX NAME)



CC 35-5 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 75

ST **liq cryst** polymer distyrylbenzene mesogen;
 palladium complex catalyst polymn condensation

IT **Liquid crystals**
 (distyrylbenzene mesogen group-contg. polymers, prepn. of, in presence of palladium complex catalyst)

IT Polyesters, preparation
 Polyethers, preparation

(prepn. of **liq.-cryst.**, from divinylbenzenes
and bis(halophenyl) compds.)

IT 125439-59-0P 125439-60-3P 125439-61-4P 125439-62-5P
125439-63-6P 125439-64-7P 125439-65-8P **125439-66-9P**
125439-67-0P 125439-68-1P 125439-69-2P 125439-70-5P
125439-72-7P 125439-73-8P 125439-74-9P 125439-75-0P
125439-76-1P 125439-77-2P 125439-78-3P 125439-79-4P
125451-74-3P

(prepn. and **liq.-cryst.** properties of)

L69 ANSWER 5 OF 6 HCA COPYRIGHT 2005 ACS on STN

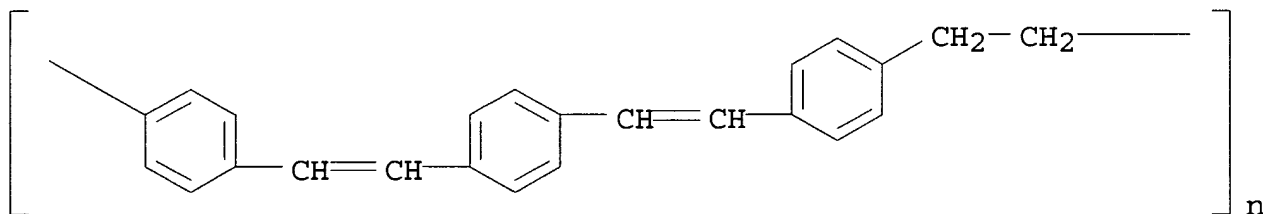
112:78079 Novel thermotropic main-chain polyhydrocarbons and block
copoly(hydrocarbon-azomethines) [Erratum to document cited in
CA110(20):173853y]. Memeger, Wesley, Jr. (Text. Fibers Dep., E. I.
du Pont de Nemours and Co., Inc., Wilmington, DE, 19898, USA).
Macromolecules, 22(11), 4394 (English) 1989. CODEN: MAMOBX. ISSN:
0024-9297.

AB Errors in Table I and the caption to Figure 5 have been cor. The
errors were not reflected in the abstr. or the index entries.

IT **118018-67-0**
(**liq.-cryst.** prepn. and properties of
(Erratum))

RN 118018-67-0 HCA

CN Poly[1,4-phenylene-(1E)-1,2-ethenediyl-1,4-phenylene-(1E)-1,2-
ethenediyl-1,4-phenylene-1,2-ethanedyl] (9CI) (CA INDEX NAME)



CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 40, 75

ST Erratum polyarylenevinylene **liq cryst** fiber;
polyhydrocarbon azomethine **liq cryst** fiber
Erratum; Wittig reaction **liq cryst**
polyarylenevinylene Erratum

IT Poly(arylenealkenylenes)
(azomethine group-contg., fiber, **liq.-cryst.**,
prepn. and properties of (Erratum))

IT Poly(arylenealkenylenes)
(**liq.-cryst.**, prepn. and properties of
(Erratum))

IT Solvent effect
(on yield and properties of **liq.-cryst.**)

- poly(arylenealkenylenes) (Erratum))
- IT Synthetic fibers, polymeric
(bis(aminophenyl)ethane-bis[(triphenylphosphonio)methyl]benzene
dichloride-chloroterephthalaldehyde, **liq.-cryst**
., prepn. and properties of (Erratum))
- IT Synthetic fibers, polymeric
(bis[(triphenylphosphonio)methyl]bibenzylidene
dibromide-chloroterephthalaldehyde, **liq.-cryst**
., prepn. and properties of (Erratum))
- IT Poly(arylenealkenylenes)
(fiber, **liq.-cryst.**, prepn. and properties of
(Erratum))
- IT **Liquid crystals**
(thermotropic, poly(arylenealkenylenes), prepn. and properties of
(Erratum))
- IT 118018-63-6 118018-64-7 118018-65-8 118018-66-9
118018-67-0 118041-61-5 118101-94-3 118101-95-4
118101-96-5 118101-97-6
(**liq.-cryst.** prepn. and properties of
(Erratum))
- IT 118018-57-8P 118018-59-0P 118018-60-3P 118018-61-4P
118041-60-4P
(**liq.-cryst.**, prepn. and properties of
(Erratum))

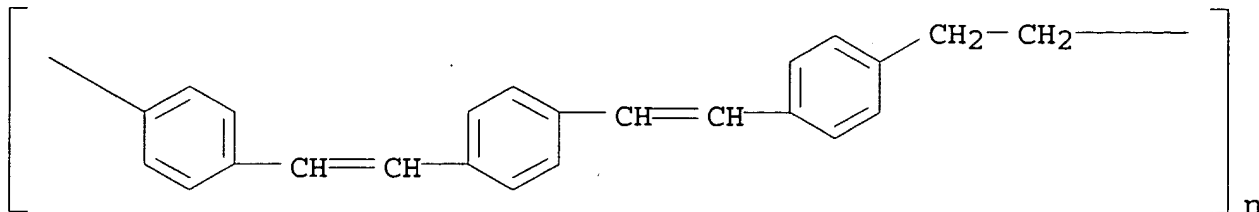
L69 ANSWER 6 OF 6 HCA COPYRIGHT 2005 ACS on STN

110:173853 Novel thermotropic main-chain polyhydrocarbons and block
copoly(hydrocarbon azomethines). Memeger, Wesley, Jr. (Text. Fibers
Dep., E. I. du Pont de Nemours and Co., Inc., Wilmington, DE, 19898,
USA). Macromolecules, 22(4), 1577-88 (English) 1989. CODEN:
MAMOBX. ISSN: 0024-9297.

AB **Liq.-cryst.** poly(arylenevinylens) contg.
phenylene, chlorophenylene, naphthalene, and anthracene groups in
the backbone were prepd. via the Wittig reaction.
Poly[phenyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-
ethenediyl] failed to give a thermotropic melt but instead gave one
which exhibited a high degree of shear anisotropy. The lack of
thermotropism was attributed to a high cis-1,2-ethenediyl content
which when coupled to the large lateral group effect prevented
proper chain alignment. Fibers were spun from these polymers and
their properties were dependent on the degree of order in the
polymer melts. Thermotropic polymers contg. blocks of rigid
hydrocarbons linked by azomethine groups were prepd. by reaction of
arom. diamines with aldehyde-terminated oligo[(chloro-1,4-phenylene)-
1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl]. These polymers
yielded fibers with high strength and modulus.

- IT **118018-67-0**
(**liq.-cryst.** prepn. and properties of)
- RN 118018-67-0 HCA

CN Poly[1,4-phenylene-(1E)-1,2-ethenediyl-1,4-phenylene-(1E)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



- CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 40, 75
- ST polyarylenevinylene **liq cryst** fiber;
polyhydrocarbon azomethine **liq cryst** fiber;
Wittig reaction **liq cryst** polyarylenevinylene
- IT Poly(arylenealkenylenes)
(**liq.-cryst.**, prepn. and properties of)
- IT Solvent effect
(on yield and properties of **liq.-cryst.**
poly(arylenealkenylenes))
- IT Poly(arylenealkenylenes)
(azomethine group-contg., fiber, **liq.-cryst.**,
prepn. and properties of)
- IT Synthetic fibers, polymeric
(bis(aminophenyl)ethane-bis[(triphenylphosphonio)methyl]benzene
dichloride-chloroterephthalaldehyde, **liq.-cryst**
., prepn. and properties of)
- IT Synthetic fibers, polymeric
(bis[(triphenylphosphonio)methyl]bibenzylidene
dibromide-chloroterephthalaldehyde, **liq.-cryst**
., prepn. and properties of)
- IT Poly(arylenealkenylenes)
(fiber, **liq.-cryst.**, prepn. and properties
of)
- IT **Liquid crystals**
(thermotropic, poly(arylenealkenylenes), prepn. and properties
of)
- IT 118018-63-6 118018-64-7 118018-65-8 118018-66-9
118018-67-0 118041-61-5 118101-94-3 118101-95-4
118101-96-5 118101-97-6
(**liq.-cryst.** prepn. and properties of)
- IT 118018-57-8P 118018-59-0P 118018-60-3P 118018-61-4P
118041-60-4P
(**liq.-cryst.**, prepn. and properties of)

=> d 171 1-54 cbib fhitstr

L71 ANSWER 1 OF 54 HCA COPYRIGHT 2005 ACS on STN

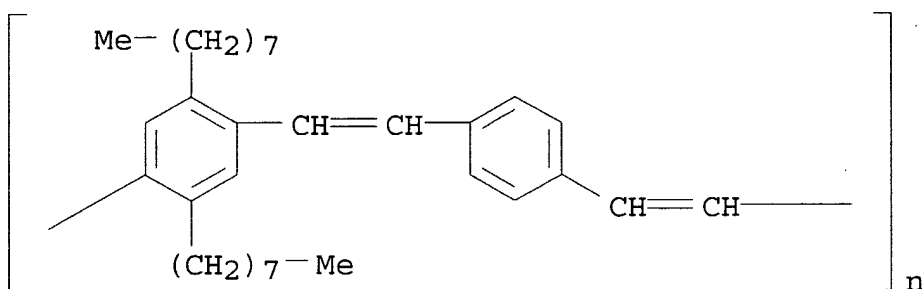
142:298415 Removal of Palladium Nanoparticles from Polymer Materials. Nielsen, Kim T.; Bechgaard, Klaus; Krebs, Frederik C. (The Danish Polymer Centre, RISO National Laboratory, Roskilde, DK-4000, Den.). Macromolecules, 38(3), 658-659 (English) 2005. CODEN: MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.

IT 184431-55-8P

(prepn. of azothioformamide and use in removal of residual Pd catalyst from prepd. conjugated polymers and purity anal. of polymers for electroluminescent devices)

RN 184431-55-8 HCA

CN Poly[(2,5-dioctyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 2 OF 54 HCA COPYRIGHT 2005 ACS on STN

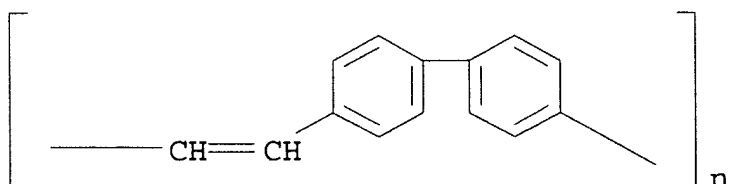
142:269541 Reconfigurable logic through deposition of organic pathways. Carlson, Gregory Frank; McClelland, Todd Alan; McKinley, Patrick Alan (USA). U.S. Pat. Appl. Publ. US 2005045375 A1 20050303, 11 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-650151 20030827.

IT 32032-44-3

(reconfigurable logic through deposition of org. pathways)

RN 32032-44-3 HCA

CN Poly([1,1'-biphenyl]-4,4'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



L71 ANSWER 3 OF 54 HCA COPYRIGHT 2005 ACS on STN

142:207476 Direct emissive pattern formation in PPV-type polymer with

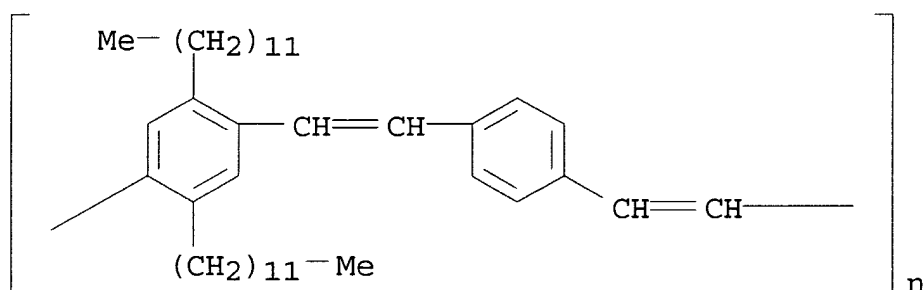
built-in photoresist properties and the application to light emitting devices. Krebs, Frederik C.; Spanggaard, Holger (The Danish Polymer Centre, RISO National Laboratory, Roskilde, DK-4000, Den.). Synthetic Metals, 148(1), 53-59 (English) 2005. CODEN: SYMEDZ. ISSN: 0379-6779. Publisher: Elsevier B.V..

IT 603129-01-7

(application of built-in photoresist property to control emissive layer in PLED devices made from didodecylstilbenevinylene polymer film and effect of photobleaching on current-voltage characteristics)

RN 603129-01-7 HCA

CN Poly[(2,5-didodecyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 4 OF 54 HCA COPYRIGHT 2005 ACS on STN

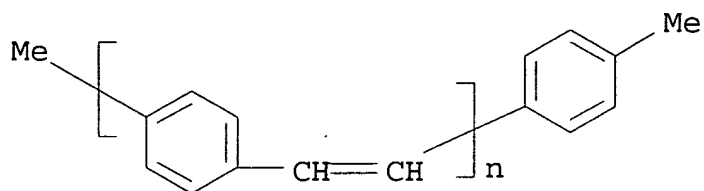
142:177433 VIS/NIR Absorption Spectra of Positively Charged Oligo(phenylenevinylene)s and Comparison with Time-Dependent Density Functional Theory Calculations. Fratiloiu, Silvia; Candeias, Luis P.; Grozema, Ferdinand C.; Wildeman, Jurjen; Siebbeles, Laurens D. A. (Department of Radiation Chemistry, Interfaculty Reactor Institute, Delft University of Technology, Delft, 2629 JB, Neth.). Journal of Physical Chemistry B, 108(52), 19967-19975 (English) 2004. CODEN: JPCBFK. ISSN: 1520-6106. Publisher: American Chemical Society.

IT 506427-04-9

(VIS/NIR absorption spectra of pos. charged oligo(phenylenevinylene)s compared with time-dependent d. functional theory calcns.)

RN 506427-04-9 HCA

CN Poly(1,4-phenylene-1,2-ethenediyl), .alpha.-methyl-.omega.-(4-methylphenyl)- (9CI) (CA INDEX NAME)



L71 ANSWER 5 OF 54 HCA COPYRIGHT 2005 ACS on STN

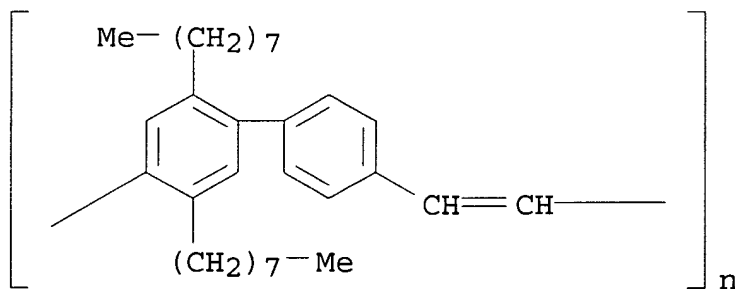
142:6908 Simple synthesis of monomers for regioregular poly(dialkylbiphenylenevinylene) conducting polymers through directional polymerization. [Erratum to document cited in CA138:107100]. Krebs, Frederik C.; Jorgensen, Mikkel (Danish Polymer Centre, Riso National Laboratory, Roskilde, DK-4000, Den.). Macromolecules, 37(12), 4740 (English) 2004. CODEN: MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.

IT **488133-31-9P**

(prepn. and elec. cond. of regioregular dioctyl-substituted poly(biphenylenevinylene)s (Erratum))

RN 488133-31-9 HCA

CN Poly[(2,5-dioctyl[1,1'-biphenyl]-4,4'-diyl)-1,2-ethenediyl] (9CI)
(CA INDEX NAME)



L71 ANSWER 6 OF 54 HCA COPYRIGHT 2005 ACS on STN

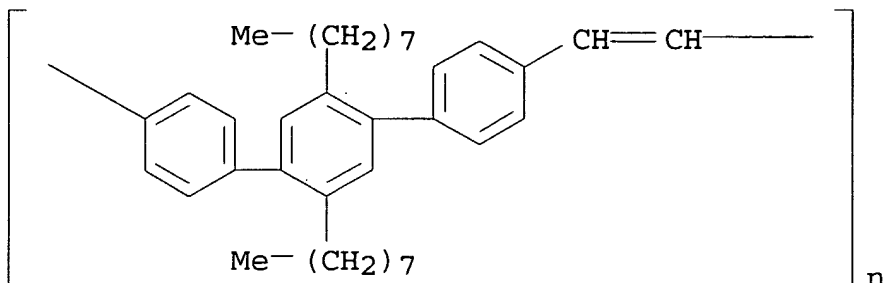
141:380225 Controlling the energy levels of conducting polymers. Hydrogen versus fluorine in poly(dialkylterphenylenevinylene)s. [Erratum to document cited in CA137:263392]. Krebs, Frederik C.; Jorgensen, Mikkel (Danish Polymer Centre, Riso National Laboratory, Roskilde, DK-4000, Den.). Macromolecules, 37(10), 3958 (English) 2004. CODEN: MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.

IT **463297-47-4P**

(controlling energy levels of conducting poly(dialkylterarylenevinylene)s (Erratum))

RN 463297-47-4 HCA

CN Poly[(2',5'-dioctyl[1,1':4',1''-terphenyl]-4,4''-diyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 7 OF 54 HCA COPYRIGHT 2005 ACS on STN

141:340150 Organic electroluminescent device and manufacturing method.

Hirayama, Yasuko; Sano, Takeshi; Sakakibara, Takahisa (Sanyo Electric Co. Ltd., Japan). PCT Int. Appl. WO 2004089043 A1

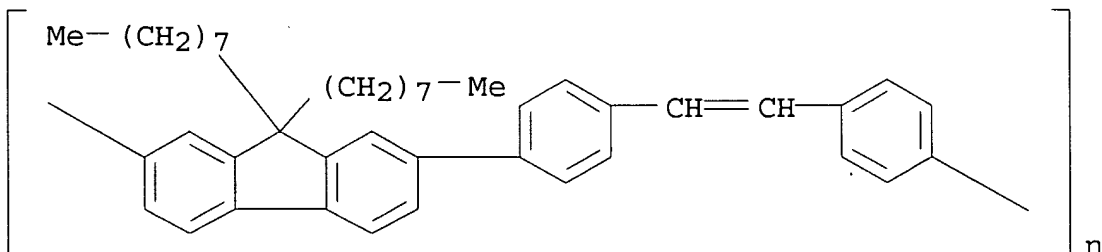
20041014, 75 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2004-JP4104 20040324. PRIORITY: JP 2003-97308 20030331; JP 2004-55397 20040227.

IT 773895-98-0

(org. electroluminescent device and manufg. method)

RN 773895-98-0 HCA

CN Poly[(9,9-dioctyl-9H-fluorene-2,7-diyl)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene] (9CI) (CA INDEX NAME)



L71 ANSWER 8 OF 54 HCA COPYRIGHT 2005 ACS on STN

141:261137 High carrier mobility in a series of new semiconducting PPV-type polymers. [Erratum to document cited in CA139:101491].

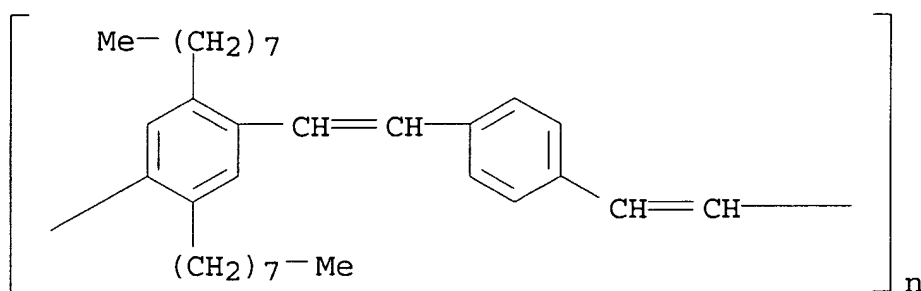
Krebs, Frederik C.; Jorgensen, Mikkel (Danish Polymer Centre, Risoe National Laboratory, Roskilde, DK-4000, Den.). *Macromolecules*, 37(12), 4740 (English) 2004. CODEN: MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.

IT **184431-55-8P**

(prepn. and structure and carrier lifetime and mobility of PPV-dialkylstilbene conjugated polymers and photoetching/doping effects on cond. (Erratum))

RN 184431-55-8 HCA

CN Poly[(2,5-dioctyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 9 OF 54 HCA COPYRIGHT 2005 ACS on STN

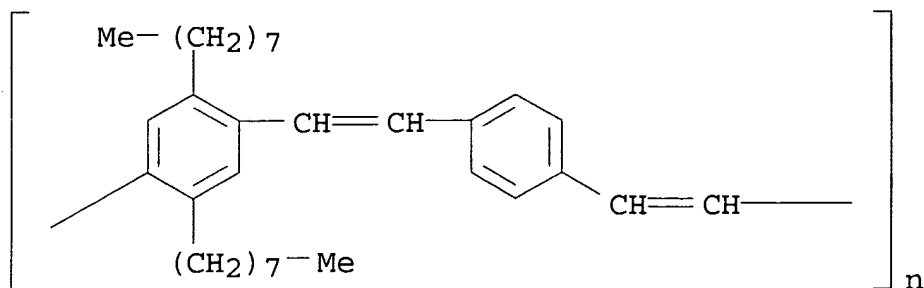
141:227997 Synthesis of dye linked conducting block copolymers, dye linked conducting homopolymers and preliminary application to photovoltaics. Krebs, Frederik C.; Hagemann, Ole; Jorgensen, Mikkel (RISO National Laboratory, The Danish Polymer Centre, Roskilde, DK-4000, Den.). *Solar Energy Materials and Solar Cells*, 83(2-3), 211-228 (English) 2004. CODEN: SEMCEQ. ISSN: 0927-0248. Publisher: Elsevier Science B.V..

IT **184431-55-8**, Poly[(2,5-dioctyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl]

(synthesis of dye linked conducting block copolymers, dye linked conducting homopolymers and preliminary application to photovoltaics)

RN 184431-55-8 HCA

CN Poly[(2,5-dioctyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 10 OF 54 HCA COPYRIGHT 2005 ACS on STN

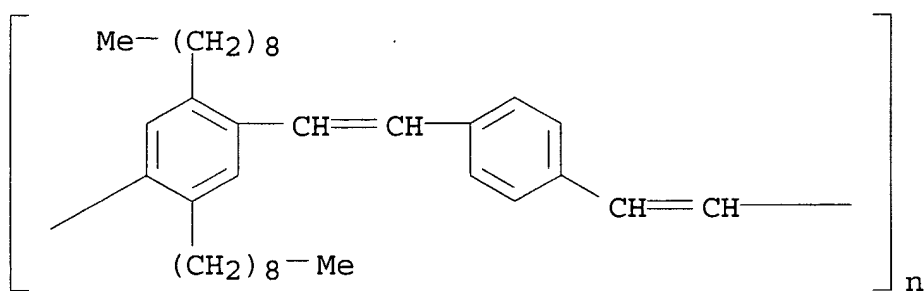
141:24402 Vacuum UV of a PPV (polyphenylenevinylene) type polymer and possible PTFE induced orientation. Jorgensen, Mikkel; Sommer-Larsen, Peter; Norrman, Kion; Krebs, Frederik C. (The Danish Polymer Centre, RISO National Laboratory, Roskilde, DK-4000, Den.). Synthetic Metals, 142(1-3), 121-125 (English) 2004. CODEN: SYMEDZ. ISSN: 0379-6779. Publisher: Elsevier Science B.V..

IT 557085-75-3

(vacuum UV of polyphenylenevinylene type polymer and possible PTFE induced orientation)

RN 557085-75-3 HCA

CN Poly[(2,5-dinonyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 11 OF 54 HCA COPYRIGHT 2005 ACS on STN

140:357734 Influence of Residual Catalyst on the Properties of Conjugated Polyphenylenevinylene Materials: Palladium Nanoparticles and Poor Electrical Performance. Krebs, Frederik C.; Nyberg, Rene B.; Jorgensen, Mikkel (The Danish Polymer Centre, RISO National Laboratory, Roskilde, DK-4000, Den.). Chemistry of Materials, 16(7), 1313-1318 (English) 2004. CODEN: CMATEX. ISSN: 0897-4756. Publisher: American Chemical Society.

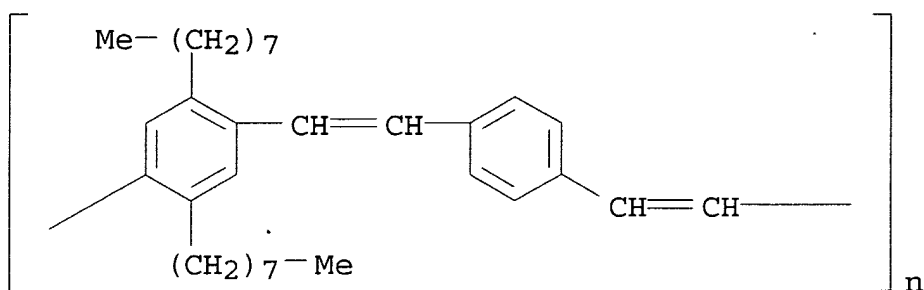
IT 184431-55-8P

(influence of residual palladium nanoparticle catalyst on

properties and elec. performance of conjugated
polyphenylenevinylene materials)

RN 184431-55-8 HCA

CN Poly[(2,5-dioctyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 12 OF 54 HCA COPYRIGHT 2005 ACS on STN

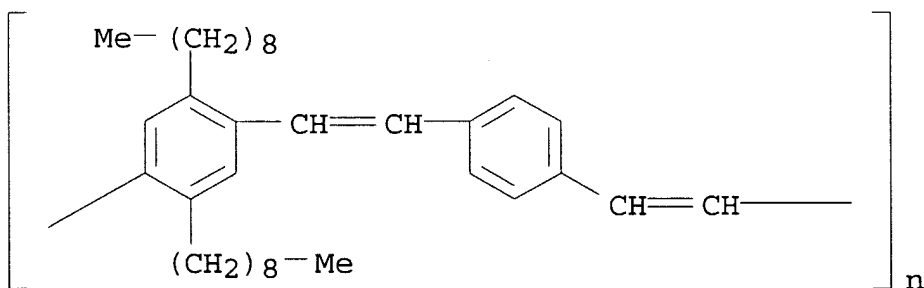
140:128758 The effect of backbone fluorination on the carrier mobility in alkoxy and alkyl substituted conducting polymers of the poly(phenylenevinylene) type. Krebs, Frederik C.; Jorgensen, Mikkel (The Danish Polymer Center, RISO National Laboratory, Roskilde, DK-4000, Den.). Polymer Bulletin (Heidelberg, Germany), 51(2), 127-134 (English) 2003. CODEN: POBUDR. ISSN: 0170-0839. Publisher: Springer-Verlag.

IT 557085-75-3P

(backbone fluorination effect on carrier mobility in alkoxy and alkyl-substituted conducting poly(phenylenevinylene)s)

RN 557085-75-3 HCA

CN Poly[(2,5-dinonyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 13 OF 54 HCA COPYRIGHT 2005 ACS on STN

140:42813 Valence band edges and optical band gaps of alternating substituted poly(phenylenevinylenes). Jorgensen, Mikkel; Krebs, Frederik C. (The Danish Polymer Center, RISO National Laboratory,

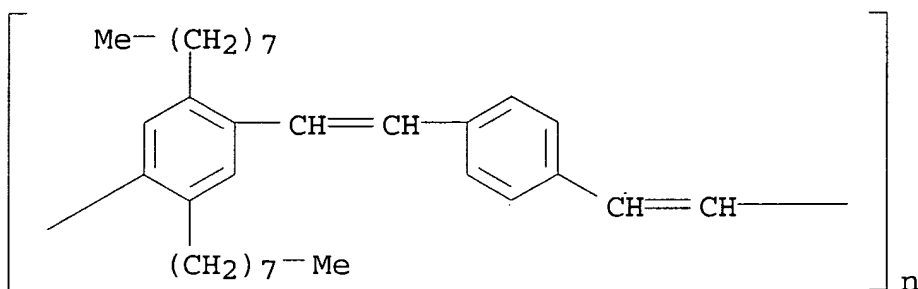
Roskilde, 4000, Den.). Polymer Bulletin (Heidelberg, Germany), 51(1), 23-30 (English) 2003. CODEN: POBUDR. ISSN: 0170-0839. Publisher: Springer-Verlag.

IT **184431-55-8**

(electronic state of alternating substituted
poly(phenylenevinylenes))

RN 184431-55-8 HCA

CN Poly[(2,5-dioctyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 14 OF 54 HCA COPYRIGHT 2005 ACS on STN

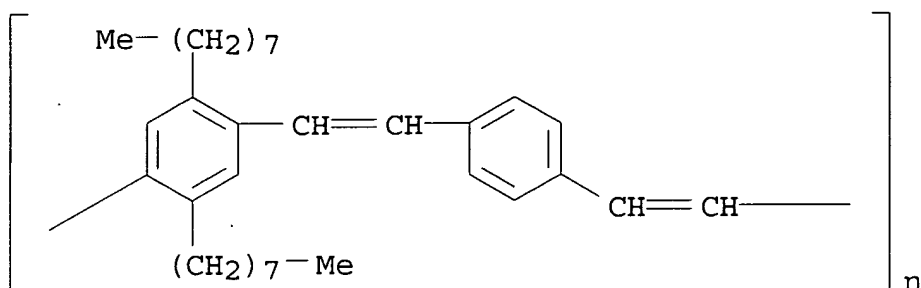
139:261670 Electronically conductive PPV copolymers synthesis and properties. Jorgensen, Mikkel; Krebs, Frederik Christian (Riso National Laboratory, Den.). PCT Int. Appl. WO 2003078498 A1 20030925, 26 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-EP2808 20030318. PRIORITY: GB 2002-6466 20020319.

IT **184431-55-8P**

(electronically conductive PPV copolymers)

RN 184431-55-8 HCA

CN Poly[(2,5-dioctyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 15 OF 54 HCA COPYRIGHT 2005 ACS on STN

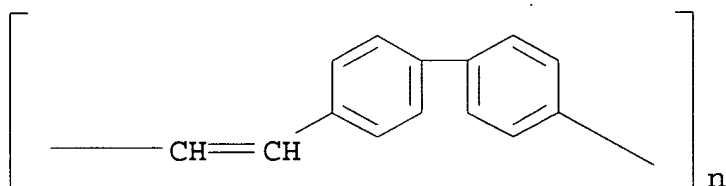
139:180458 Novel Blue Light Emitting Copolymer with Both Conjugated and Nonconjugated Segments. Tang, Jiecong; Zhang, Ruifeng; Li, Guowen; Shen, Jiacong (Key Laboratory for Supramolecular Structure and Materials of Ministry of Education, Jilin University, Changchun, 130023, Peop. Rep. China). Chemistry of Materials, 15(15), 2950-2953 (English) 2003. CODEN: CMATEX. ISSN: 0897-4756. Publisher: American Chemical Society.

IT 32032-44-3P

(novel blue light emitting copolymer with both conjugated and nonconjugated segments)

RN 32032-44-3 HCA

CN Poly([1,1'-biphenyl]-4,4'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



L71 ANSWER 16 OF 54 HCA COPYRIGHT 2005 ACS on STN

139:101491 High Carrier Mobility in a Series of New Semiconducting PPV-Type Polymers. Krebs, Frederik C.; Jorgensen, Mikkel (Danish Polymer Centre, Risoe National Laboratory, Roskilde, DK-4000, Den.). Macromolecules, 36(12), 4374-4384 (English) 2003. CODEN: MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.

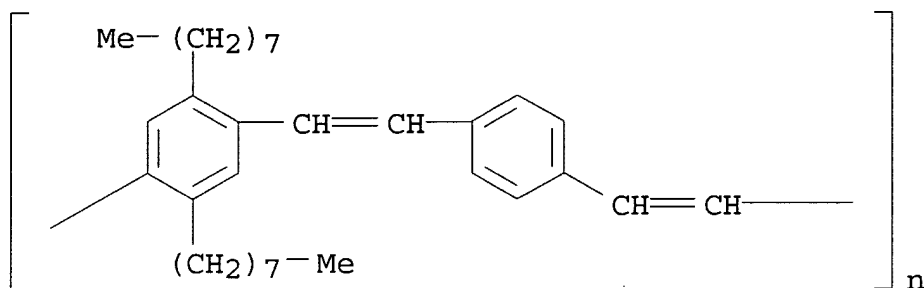
IT 184431-55-8P

(prepn. and structure and carrier lifetime and mobility of PPV-dialkylstilbene conjugated polymers and photoetching/doping effects on cond.)

RN 184431-55-8 HCA

CN Poly[(2,5-dioctyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-

ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 17 OF 54 HCA COPYRIGHT 2005 ACS on STN

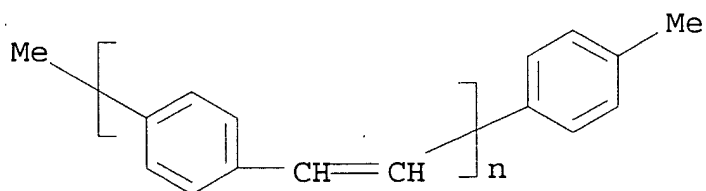
138:294243 Theoretical and experimental studies of the opto-electronic properties of positively charged oligo(phenylene vinylene)s: effects of chain length and alkoxy substitution. Grozema, F. C.; Candeias, L. P.; Swart, M.; van Duijnen, P. Th.; Wildeman, J.; Hadziioanou, G.; Siebbeles, L. D. A.; Warman, J. M. (Interfaculty Reactor Institute, Department of Radiation Chemistry, Delft University of Technology, Delft, 2629 JB, Neth.). Journal of Chemical Physics, 117(24), 11366-11378 (English) 2002. CODEN: JCPSA6. ISSN: 0021-9606. Publisher: American Institute of Physics.

IT 506427-04-9

(theor. and exptl. studies of opto-electronic properties of positively charged oligo(phenylene vinylene)s and effects of chain length and alkoxy substitution)

RN 506427-04-9 HCA

CN Poly(1,4-phenylene-1,2-ethenediyl), .alpha.-methyl-.omega.-(4-methylphenyl)- (9CI) (CA INDEX NAME)



L71 ANSWER 18 OF 54 HCA COPYRIGHT 2005 ACS on STN

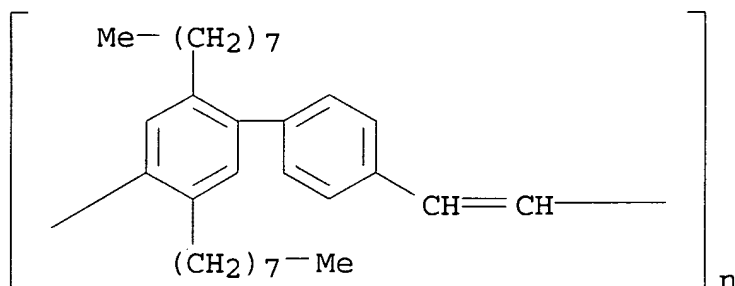
138:107100 Simple synthesis of monomers for regioregular poly(dialkylbiphenylenevinylene) conducting polymers through directional polymerization. Krebs, Frederik C.; Jorgensen, Mikkel (Riso National Laboratory, Danish Polymer Centre, Roskilde, DK-4000, Den.). Macromolecules, 35(27), 10233-10237 (English) 2002. CODEN: MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.

IT 488133-31-9P

(prepn. and elec. cond. of regioregular dioctyl-substituted
poly(biphenylenevinylene)s)

RN 488133-31-9 HCA

CN Poly[(2,5-dioctyl[1,1'-biphenyl]-4,4'-diyl)-1,2-ethenediyl] (9CI)
(CA INDEX NAME)



L71 ANSWER 19 OF 54 HCA COPYRIGHT 2005 ACS on STN

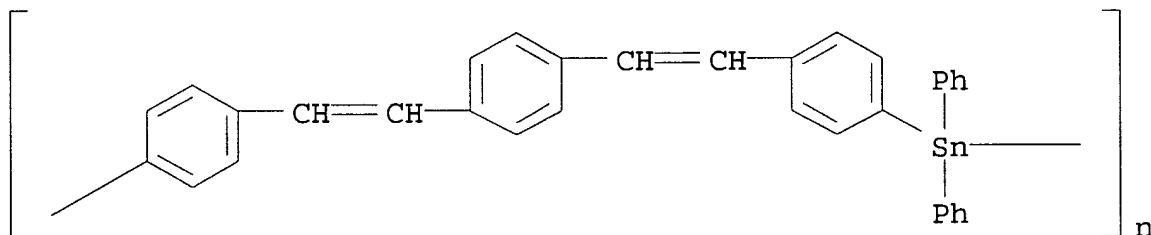
138:63197 Exploratory Synthesis and Luminescence Study of the First
.pi.-Conjugated Tin-Based Alternating Copolymers for Blue
Light-Emitting Diodes at the Very Low Operating Voltage. Baek, Nam
Seob; Kim, Hwan Kyu; Chae, Eun Hee; Kim, Byeang Hyeon; Lee, Ji-Hoon
(Center for Smart Light-Harvesting Materials and Department of
Polymer Science Engineering, Hannam University, Daejeon, 306-791, S.
Korea). Macromolecules, 35(25), 9282-9288 (English) 2002. CODEN:
MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.

IT 434952-94-0P

(synthesis and luminescence of .pi.-conjugated tin-based
alternating copolymers for blue LEDs having low operating
voltage)

RN 434952-94-0 HCA

CN Poly[(diphenylstannylene)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-
1,2-ethenediyl-1,4-phenylene] (9CI) (CA INDEX NAME)



L71 ANSWER 20 OF 54 HCA COPYRIGHT 2005 ACS on STN

137:263392 Controlling the Energy Levels of Conducting Polymers.
Hydrogen versus Fluorine in Poly(dialkylterphenylenevinylene)s.
Krebs, Frederik C.; Jorgensen, Mikkel (Danish Polymer Centre, Riso

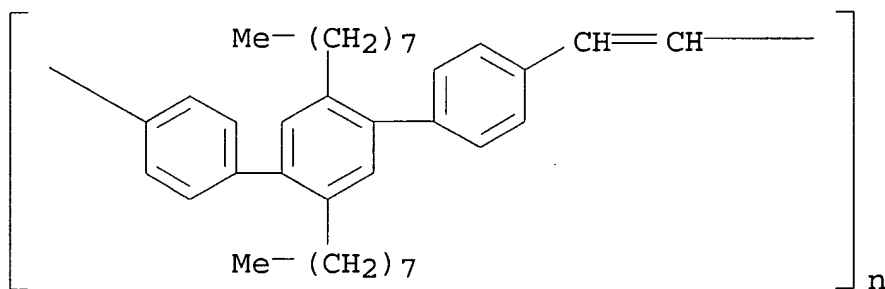
National Laboratory, Roskilde, DK-4000, Den.). Macromolecules, 35(19), 7200-7206 (English) 2002. CODEN: MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.

IT **463297-47-4P**

(controlling the energy levels of conducting poly(dialkylterarylenevinylenes))

RN 463297-47-4 HCA

CN Poly[(2',5'-dioctyl[1,1':4',1''-terphenyl]-4,4''-diyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 21 OF 54 HCA COPYRIGHT 2005 ACS on STN

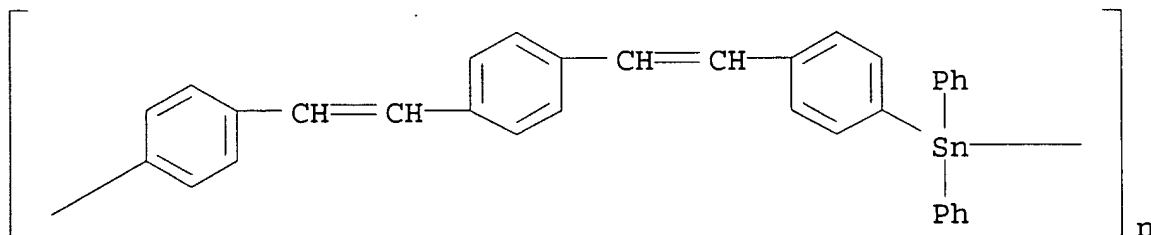
137:20708 Exploratory synthesis and luminescent property of novel .pi.-conjugated tin-based alternating copolymers. Baek, N. S.; Kim, H. K.; Chae, E. H.; Kim, B. H.; Lee, J-H. (National Creative Initiative Center Smar Light-Harvesting Materials, Dep. Polymer Sci. Eng., Hannam Univ., Taejon, 306-791, S. Korea). Polymer Preprints (American Chemical Society, Division of Polymer Chemistry), 43(1), 75-76 (English) 2002. CODEN: ACPAY. ISSN: 0032-3934. Publisher: American Chemical Society, Division of Polymer Chemistry.

IT **434952-94-0P**

(prepn. and luminescence of .pi.-conjugated Sn-polyphenylene-vinylene alternating copolymers and use in double layer EL devices)

RN 434952-94-0 HCA

CN Poly[(diphenylstannylene)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene] (9CI) (CA INDEX NAME)



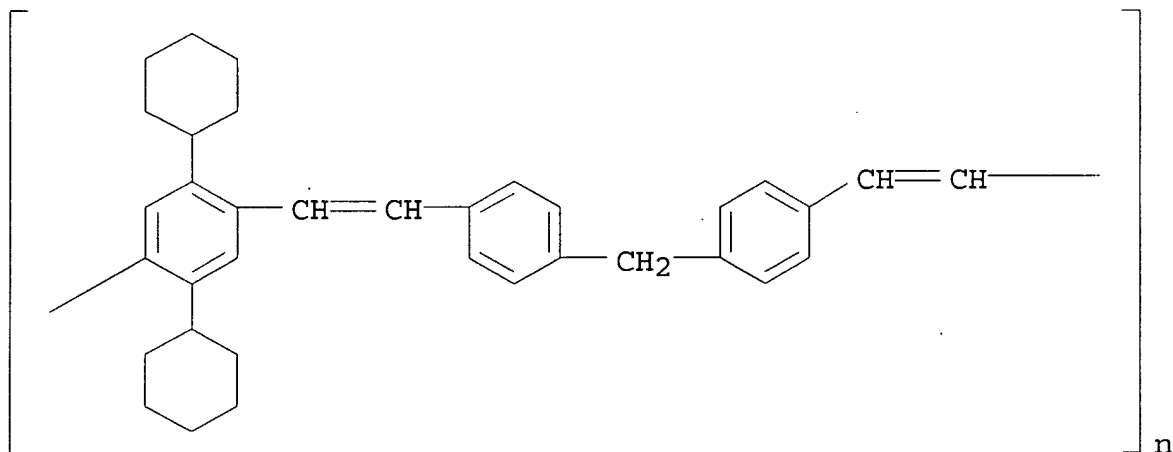
L71 ANSWER 22 OF 54 HCA COPYRIGHT 2005 ACS on STN

136:86172 Efficient Light Harvesting by Sequential Energy Transfer across Aggregates in Polymers of Finite Conjugational Segments with Short Aliphatic Linkages. Peng, Kang-Yung; Chen, Show-An; Fann, Wun-Shain (Department of Chemical Engineering, National Tsing-Hua University, Hsinchu, 30013, Taiwan). Journal of the American Chemical Society, 123(46), 11388-11397 (English) 2001. CODEN: JACSAT. ISSN: 0002-7863. Publisher: American Chemical Society.

IT 386291-91-4P, 2,5-Dibromomethyl-1,4-dicyclohexylbenzene-4,4'-methanediyl dibenzaldehyde copolymer, SRU
(prepn. and efficient light harvesting by sequential energy transfer across aggregates in poly(phenylenevinylene)s with finite conjugation segments)

RN 386291-91-4 HCA

CN Poly[(2,5-cyclohexyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylenemethylene-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 23 OF 54 HCA COPYRIGHT 2005 ACS on STN

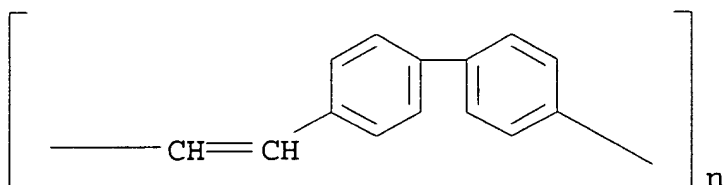
135:243241 Electrical characteristics in unipolar conjugated polymer devices: the case of modified transport properties in the neighbourhood of the top electrode/polymer interface. Koehler, M.; Da Luz, M. G. E.; Hummelgen, I. A. (Nonlinear Optics Laboratory, Institute of Quantum Electronics, Swiss Federal Institute of Technology, ETH Honggerberg, Zurich, CH-8093, Switz.). Journal of Physics D: Applied Physics, 34(13), 1947-1950 (English) 2001. CODEN: JPAPBE. ISSN: 0022-3727. Publisher: Institute of Physics Publishing.

IT 32032-44-3, Poly(4,4'-biphenylenevinylene)
(aluminum electrode layers contg.; elec. characteristics of modified transport properties in neighborhood of top electrode/polymer interface in unipolar conjugated polymer

devices)

RN 32032-44-3 HCA

CN Poly([1,1'-biphenyl]-4,4'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



L71 ANSWER 24 OF 54 HCA COPYRIGHT 2005 ACS on STN

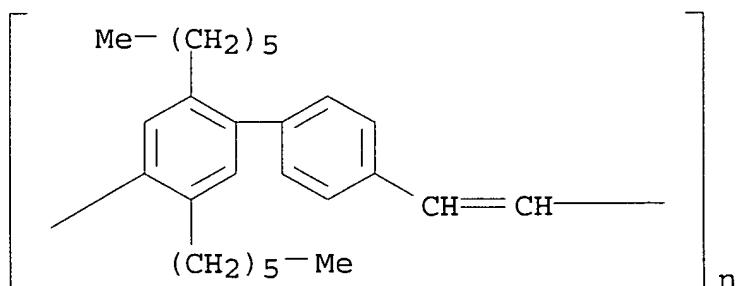
134:318453 Transparent organic electroluminescent systems. Wedel, Armin; Janietz, Silvia; Geigenfeind, Robert (Fraunhofer-Gesellschaft Zur Foerderung Der Angewandten Forschung E.V., Germany; Rehau AG & Co.). PCT Int. Appl. WO 2001029908 A1 20010426, 29 pp. DESIGNATED STATES: W: JP, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (German). CODEN: PIXXD2. APPLICATION: WO 2000-EP10312 20001019. PRIORITY: DE 1999-19950782 19991021.

IT 335282-26-3

(org. electroluminescent systems employing polymer solns. sandwiched between electrodes)

RN 335282-26-3 HCA

CN Poly[(2,5-dihexyl[1,1'-biphenyl]-4,4'-diyl)-1,2-ethenediyl] (9CI) (CA INDEX NAME)

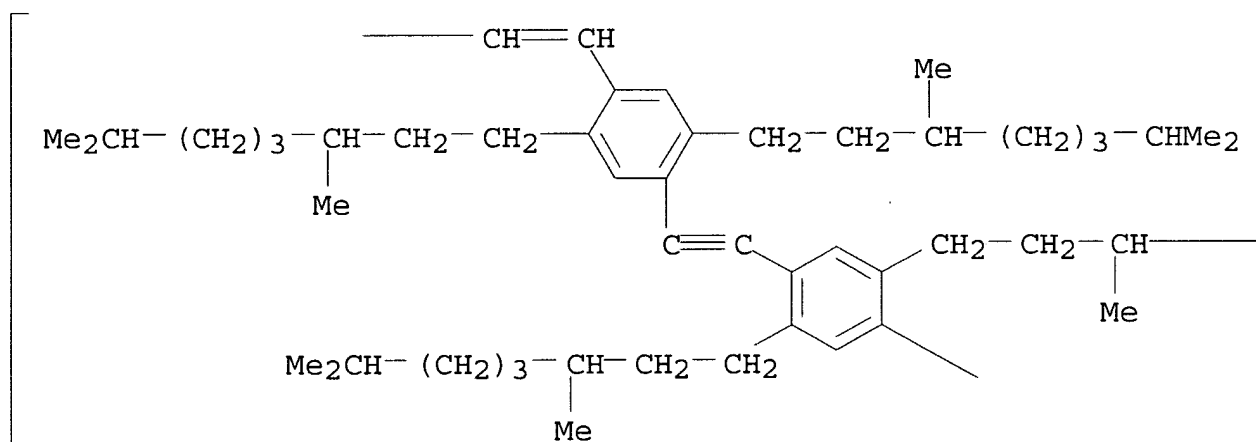


L71 ANSWER 25 OF 54 HCA COPYRIGHT 2005 ACS on STN

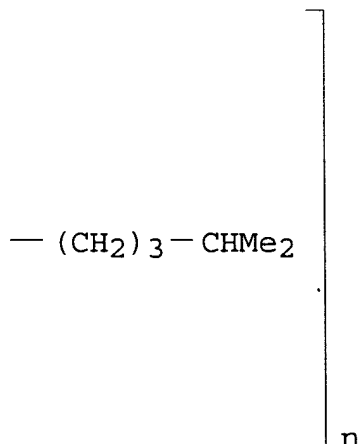
134:163388 Alkyne Metathesis with Simple Catalyst Systems: Efficient Synthesis of Conjugated Polymers Containing Vinyl Groups in Main or Side Chain. Brizius, Glen; Pschirer, Neil Gregory; Steffen, Winfried; Stitzer, Katherine; zur Loye, Hans-Conrad; Bunz, Uwe H. F. (Department of Chemistry and Biochemistry, The University of South Carolina, Columbia, SC, 29208, USA). Journal of the American Chemical Society, 122(50), 12435-12440 (English) 2000. CODEN:

JACSAT. ISSN: 0002-7863. Publisher: American Chemical Society.
 IT **325145-14-0P**, 2-[(1E)-2-[2,5-Bis((3S)-3,7-dimethyloctyl)-4-prop-1-ynylphenyl]vinyl],4-bis((3S)-3,7-dimethyloctyl)-5-prop-1-ynylbenzene homopolymer, SRU
 (alkyne metathesis with Mo(CO)₆-chlorophenol catalyst in prepn. of phenylenevinylene-alkyne conjugated polymers and morphol. and fluorescence of polymers)
 RN 325145-14-0 HCA
 CN Poly[[2,5-bis[(3S)-3,7-dimethyloctyl]-1,4-phenylene]-1,2-ethynediyl[2,5-bis[(3S)-3,7-dimethyloctyl]-1,4-phenylene]-(1E)-1,2-ethenediyl] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



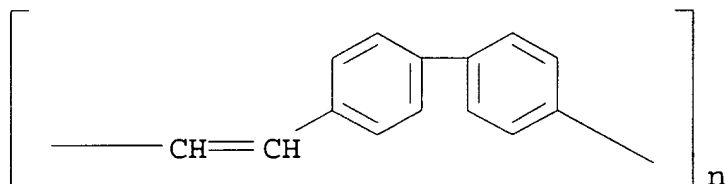
L71 ANSWER 26 OF 54 HCA COPYRIGHT 2005 ACS on STN

133:151164 Charge injection and transport in poly(4,4'-biphenylenevinylene). Ma, Dongge; Hummelgen, I. A.; Li, Rosamaria W. C.; Gruber, J. (Departamento de Fisica, Universidade Federal do Parana, Curitiba, 81531-990, Brazil). Journal of Physics D: Applied Physics, 33(11), 1376-1379 (English) 2000. CODEN: JPAPBE. ISSN: 0022-3727. Publisher: Institute of Physics Publishing.

IT 32032-44-3, Poly(4,4'-biphenylenevinylene)
(charge injection and transport in poly(4,4'-biphenylenevinylene))

RN 32032-44-3 HCA

CN Poly([1,1'-biphenyl]-4,4'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



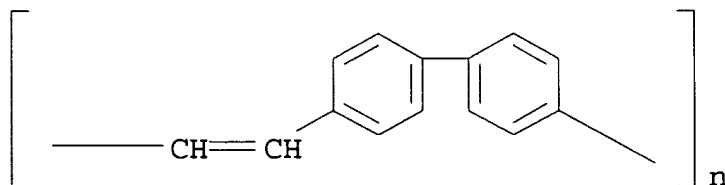
L71 ANSWER 27 OF 54 HCA COPYRIGHT 2005 ACS on STN

133:17916 Preparation of poly(biphenylene vinylene) type polymers by Ni-promoted polycondensation and their basic optical properties. Yamamoto, Takakazu; Xu, Yuqing; Inoue, Tetsuji; Yamaguchi, Isao (Research Laboratory of Resources Utilization, Tokyo Institute of Technology, Yokohama, 226-8503, Japan). Journal of Polymer Science, Part A: Polymer Chemistry, 38(9), 1493-1504 (English) 2000. CODEN: JPACEC. ISSN: 0887-624X. Publisher: John Wiley & Sons, Inc..

IT 32032-44-3P
(prepn. and of poly(biphenylene vinylene) type polymers by
Ni-promoted polycondensation and their basic optical properties)

RN 32032-44-3 HCA

CN Poly([1,1'-biphenyl]-4,4'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



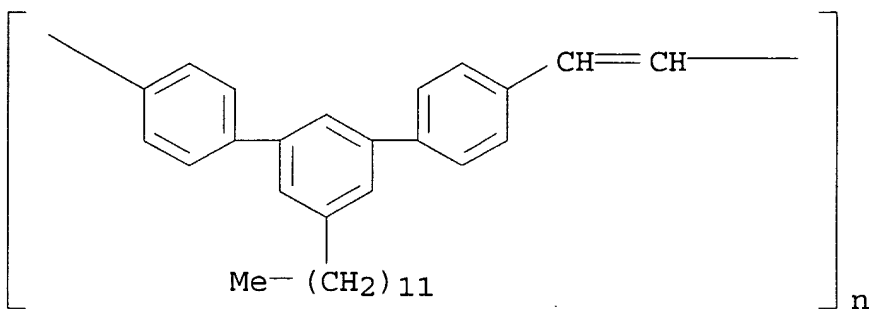
L71 ANSWER 28 OF 54 HCA COPYRIGHT 2005 ACS on STN

132:334990 Confined conjugation for adjustable optical properties. Baumgarten, M.; Caparros, D.; Yuksel, T.; Karabunarliev, S.; Rettig, W. (Max-Planck-Institute for polymer research, Mainz, D-55128, Germany). Polymer Preprints (American Chemical Society, Division of Polymer Chemistry), 41(1), 776-777 (English) 2000. CODEN: ACPPAY. ISSN: 0032-3934. Publisher: American Chemical Society, Division of Polymer Chemistry.

IT **231606-34-1P**, Trans-4,4'-Bis(dihydroxyborylstilbene)-3,5-dibromo-1-dodecylbenzene copolymer, SRU
(confined conjugation for adjustable optical properties)

RN 231606-34-1 HCA

CN Poly[(5'-dodecyl[1,1':3',1''-terphenyl]-4,4''-diyl)-(1E)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



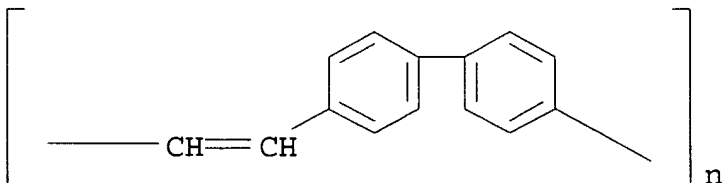
L71 ANSWER 29 OF 54 HCA COPYRIGHT 2005 ACS on STN

132:334969 Electrochemical synthesis of poly(4,4'-biphenylene ethylene)s. Gruber, Jonas; Li, Rosamaria Wu Chia (Instituto de Quimica da Universidade de Sao Paulo, Sao Paulo, CEP 05599-970, Brazil). European Polymer Journal, 36(5), 923-928 (English) 2000. CODEN: EUPJAG. ISSN: 0014-3057. Publisher: Elsevier Science Ltd..

IT **32032-44-3P**
(electrochem. synthesis of poly(biphenylene ethylenes))

RN 32032-44-3 HCA

CN Poly([1,1'-biphenyl]-4,4'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



L71 ANSWER 30 OF 54 HCA COPYRIGHT 2005 ACS on STN

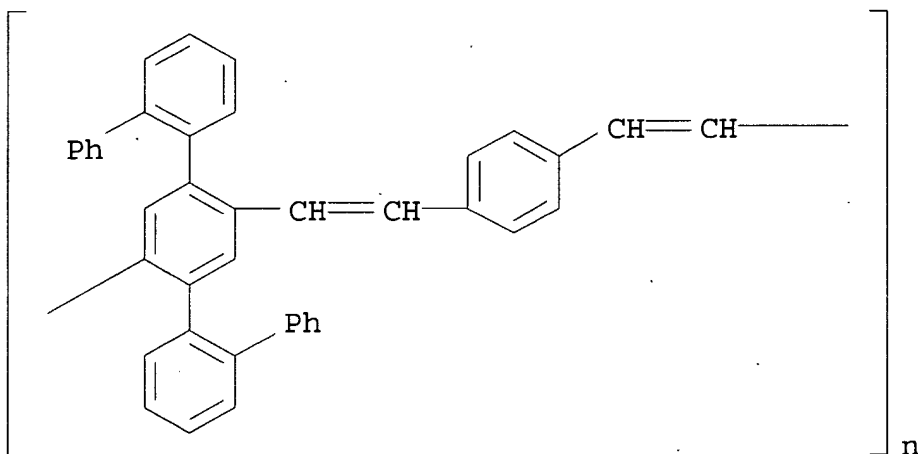
132:180952 Syntheses and optical properties of novel highly photoluminescent poly(p-phenylene vinylene)s. Peng, Zhonghua; Zhang, Jianheng; Xu, Bubin (Department of Chemistry, University of Missouri-Kansas City, Kansas City, MO, 64110, USA). Polymer Preprints (American Chemical Society, Division of Polymer Chemistry), 40(2), 1200-1201 (English) 1999. CODEN: ACPPAY. ISSN: 0032-3934. Publisher: American Chemical Society, Division of Polymer Chemistry.

IT 259217-19-1P

(syntheses and optical properties of highly photoluminescent poly(p-phenylenevinylene)s contg. 2-biphenyl substituents)

RN 259217-19-1 HCA

CN Poly([1,1':2',1'':4'',1''':2''',1''''-quinquephenyl]-2'',5''-diyl-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl) (9CI) (CA INDEX NAME)



L71 ANSWER 31 OF 54 HCA COPYRIGHT 2005 ACS on STN

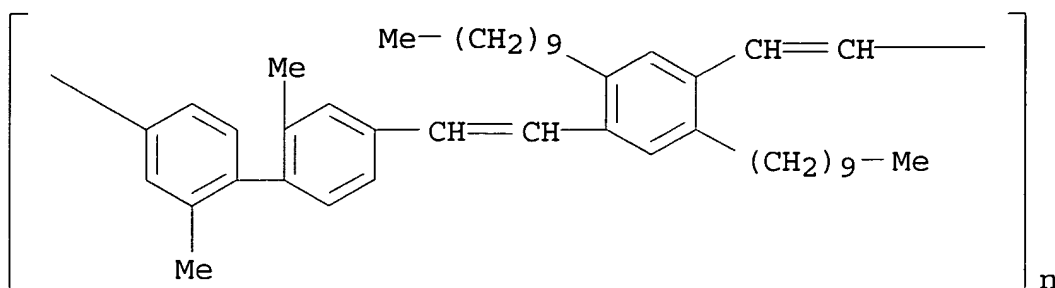
132:108442 Photodegradation of some luminescent polymers. Holzer, W.; Penzkofer, A.; Pichlmaier, M.; Bradley, D. D. C.; Blau, W. J. (Institut II - Experimentelle und Angewandte Physik, Universitat Regensburg, Regensburg, D-93053, Germany). Chemical Physics, 248(2-3), 273-284 (English) 1999. CODEN: CMPHC2. ISSN: 0301-0104. Publisher: Elsevier Science B.V..

IT 255732-01-5, 2,5-Didecylphenylenevinylene-2,2'-dimethyl-p-biphenyl-4-vinylene copolymer, SRU

(photodegrdn. mechanism of luminescent poly(aryloxy-p-phenylenevinylene)s and polyacetylene-polypyridines or -polythiophenes for lasing use)

RN 255732-01-5 HCA

CN Poly[(2,2'-dimethyl[1,1'-biphenyl]-4,4'-diyl)-1,2-ethenediyl(2,5-didecyl-1,4-phenylene)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 32 OF 54 HCA COPYRIGHT 2005 ACS on STN

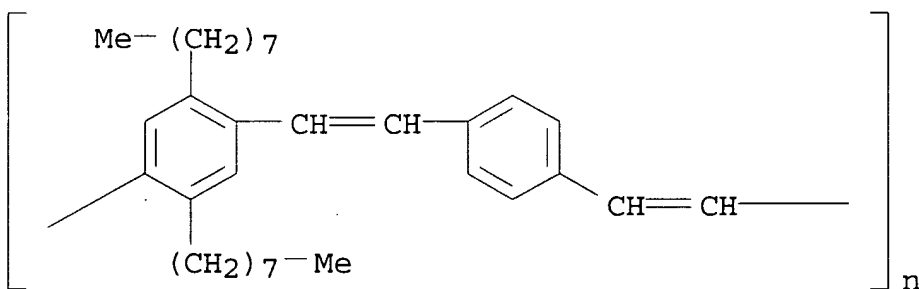
132:108394 Palladium-catalyzed arylation of ethylene. A synthetic route to styrenes, stilbenes, and poly(phenylene vinylene)s. Kiji, J.; Okano, T.; Ooue, A. (Koyama Minami, Department of Materials Science, Tottori University, Tottori, Japan). Journal of Molecular Catalysis A: Chemical, 147(1-2), 3-10 (English) 1999. CODEN: JMCCF2. ISSN: 1381-1169. Publisher: Elsevier Science B.V..

IT 184431-55-8P

(palladium-catalyzed arylation of ethylene in synthesis of styrenes, stilbenes, and poly(phenylene vinylene)s)

RN 184431-55-8 HCA

CN Poly[(2,5-dioctyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



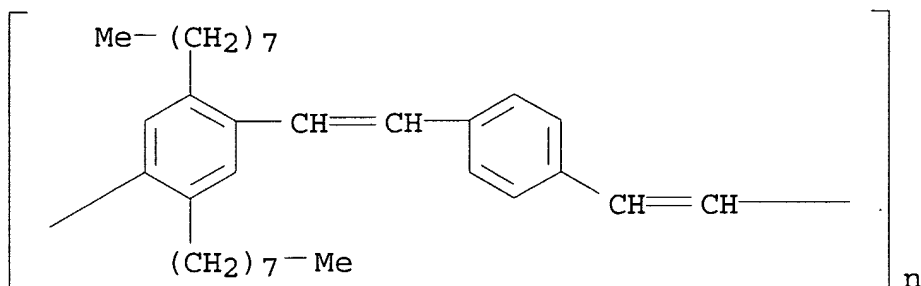
L71 ANSWER 33 OF 54 HCA COPYRIGHT 2005 ACS on STN

131:200400 Photophysics of an alkyl-substituted poly(p-phenylenevinylene). Sheridan, A. K.; Samuel, I. D. W.; Bleyer, A.; Bradley, D. D. C. (Department of Physics, University of Durham, Durham, DH1 3LE, UK). Synthetic Metals, 101(1-3), 259-260 (English) 1999. CODEN: SYMEDZ. ISSN: 0379-6779. Publisher: Elsevier Science S.A..

IT 184431-55-8P

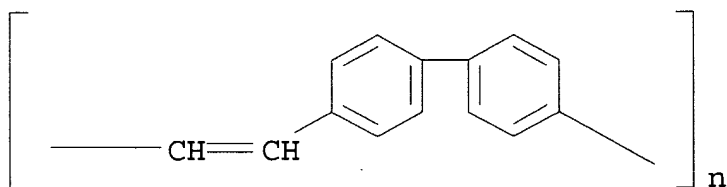
(photoluminescence and absorption spectra of p-phenylenevinylene-dioctyl-p-phenylenevinylene copolymer)

RN 184431-55-8 HCA
 CN Poly[(2,5-dioctyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 34 OF 54 HCA COPYRIGHT 2005 ACS on STN
 131:150648 Electrochemical synthesis of poly(4,4'-biphenylenevinylene)s (PBPVs). Gruber, Jonas; Li, Rosamaria Wu Chia (Instituto de Quimica da Universidade de Sao Paulo, Sao Paulo, CEP 05599-970, Brazil). Journal of Materials Chemistry, 9(7), 1461-1464 (English) 1999. CODEN: JMACEP. ISSN: 0959-9428. Publisher: Royal Society of Chemistry.

IT **32032-44-3P**
 (electrochem. synthesis and thermal anal. and IR spectra and UV-visible spectra and NMR spectra and cond. of)
 RN 32032-44-3 HCA
 CN Poly([1,1'-biphenyl]-4,4'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



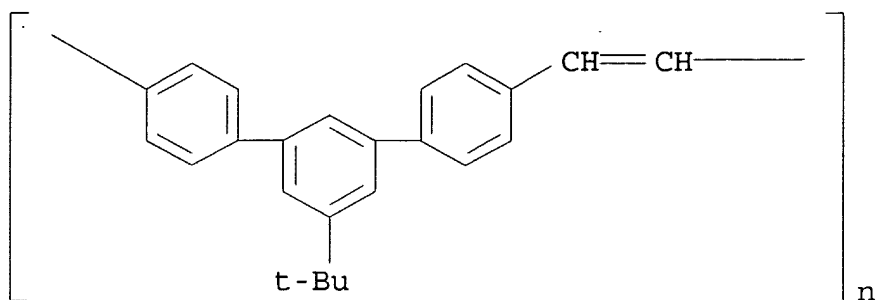
L71 ANSWER 35 OF 54 HCA COPYRIGHT 2005 ACS on STN
 131:102612 Synthesis and optical properties of novel blue fluorescent conjugated polymers. Baumgarten, Martin; Yuksel, Timucin (Max-Planck-Institut fur Polymerforschung, Mainz, D-55128, Germany). Physical Chemistry Chemical Physics, 1(8), 1699-1706 (English) 1999. CODEN: PPCPFQ. ISSN: 1463-9076. Publisher: Royal Society of Chemistry.

IT **231606-30-7P**, Trans-4,4'-bis(dihydroxyborylstilbene)-3,5-dibromo-1-tert-butylbenzene copolymer, SRU
 (prepn. and optical properties of blue fluorescent conjugated

polymers contg. phenylene or bianthrylene bridges controlling chain length)

RN 231606-30-7 HCA

CN Poly[[5'-(1,1-dimethylethyl)[1,1':3',1''-terphenyl]-4,4''-diyl]-(1E)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 36 OF 54 HCA COPYRIGHT 2005 ACS on STN

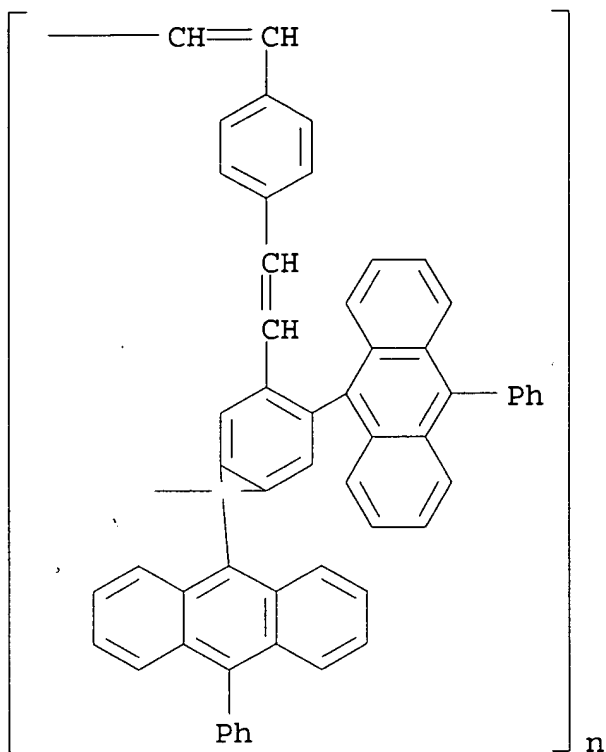
130:289054 Organic electroluminescent device material and organic electroluminescent device with it. Okada, Hisashi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11097175 A2 19990409 Heisei, 20 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-252502 19970917.

IT 222962-78-9

(org. electroluminescent device contg. arom. alkene-based compd.)

RN 222962-78-9 HCA

CN Poly[[2,5-bis(10-phenyl-9-anthracenyl)-1,4-phenylene]-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 37 OF 54 HCA COPYRIGHT 2005 ACS on STN

128:314868 Novel polymers for light emitting diodes. Peng, Z.; Galvin, M. E. (Bell Lab., Lucent Technologies, Murray Hill, NJ, 07974, USA). Acta Polymerica, 49(5), 244-247 (English) 1998. CODEN: ACPODY. ISSN: 0323-7648. Publisher: Wiley-VCH Verlag GmbH.

IT 206763-98-6P

(copolymer prepn. consisting of tri(para-phenylene) and oligo(phenylenevinylene) segments for LEDs)

RN 206763-98-6 HCA

CN Poly[(2,8-didodecyl-6,12-dihydroindeno[1,2-b]fluorene-6,12-diyl)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene] (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

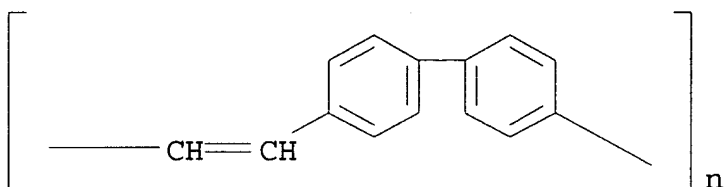
L71 ANSWER 38 OF 54 HCA COPYRIGHT 2005 ACS on STN

128:283251 A new precursor to electroconducting conjugated polymers: synthesis and opto-electrical properties of luminescent devices based on these PPV derivatives. Bijnens, W.; Van Der Borcht, M.; Manca, J.; De Ceuninck, W.; De Schepper, L.; Vanderzande, D.; Gelan, J.; Stals, L. (Instituut voor Materiaal Onderzoek, Limburgs Universitair Centrum, Diepenbeek, B-3590, Belg.). Optical Materials (Amsterdam), 9(1-4), 150-153 (English) 1998. CODEN: OMATET. ISSN: 0925-3467. Publisher: Elsevier Science B.V..

IT 32032-44-3P, Poly(4,4'-biphenylenevinylene)
(prepn. and optoelec. properties of luminescent devices based on these poly(henylenevinylene) derivs.)

RN 32032-44-3 HCA

CN Poly([1,1'-biphenyl]-4,4'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



L71 ANSWER 39 OF 54 HCA COPYRIGHT 2005 ACS on STN

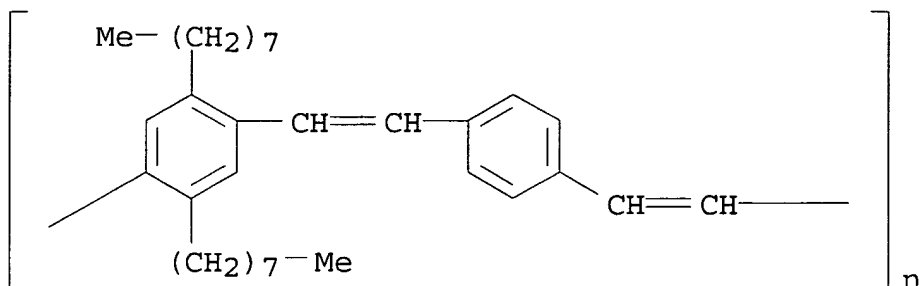
128:223464 Femtosecond Z-scan and degenerate four-wave mixing measurements of real and imaginary parts of the third-order nonlinearity of soluble conjugated polymers. Samoc, Marek; Samoc, Anna; Luther-Davies, Barry; Bao, Zhenan; Yu, Luping; Hsieh, Bing; Scherf, Ullrich (Australian Photonics Cooperative Research Centre, Research School of Physical Sciences and Engineering, Laser Physics Centre, The Australian National University, Canberra, ACT 2606, Australia). Journal of the Optical Society of America B: Optical Physics, 15(2), 817-825 (English) 1998. CODEN: JOBPDE. ISSN: 0740-3224. Publisher: Optical Society of America.

IT 184431-55-8

(fs Z-scan and degenerate four-wave mixing measurements of real and imaginary parts of third-order nonlinearity of)

RN 184431-55-8 HCA

CN Poly[(2,5-dioctyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 40 OF 54 HCA COPYRIGHT 2005 ACS on STN

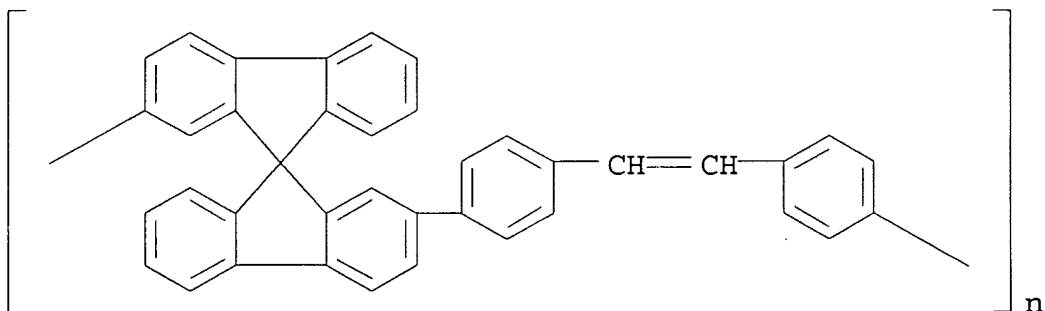
127:234782 Manufacture of partly conjugated polymers with spiro centers and their use as electroluminescent materials. Kreuder, Willi; Spreitzer, Hubert (Hoechst A.-G., Germany; Kreuder, Willi; Spreitzer, Hubert). PCT Int. Appl. WO 9731048 A1 19970828, 30 pp. DESIGNATED STATES: W: CN, JP, KR, US; RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (German). CODEN: PIXXD2. APPLICATION: WO 1997-EP551 19970207. PRIORITY: DE 1996-19606511 19960222.

IT **195063-93-5P**

(manuf. of partly conjugated polymers with spiro centers and their use as electroluminescent materials)

RN 195063-93-5 HCA

CN Poly(9,9'-spirobi[9H-fluorene]-2,2'-diyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene) (9CI) (CA INDEX NAME)



L71 ANSWER 41 OF 54 HCA COPYRIGHT 2005 ACS on STN

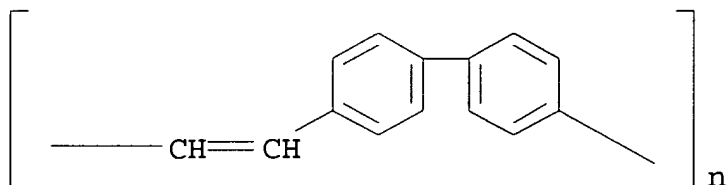
127:176964 Optical excitations in electroluminescent polymers: the poly(para-phenylenevinylene) family. Harigaya, Kikuo (Physical Science Division, Electrochemical Laboratory, Tsukuba, 305, Japan). Journal of Physics: Condensed Matter, 9(27), 5989-6000 (English) 1997. CODEN: JCOMEL. ISSN: 0953-8984. Publisher: Institute of Physics Publishing.

IT **32032-44-3**, Poly(di-p-phenylenevinylene)

(oscillator strengths and optical excitations in)

RN 32032-44-3 HCA

CN Poly([1,1'-biphenyl]-4,4'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



L71 ANSWER 42 OF 54 HCA COPYRIGHT 2005 ACS on STN

126:294295 LEDs based on conjugated PPV block copolymers. Brouwer, H. J.; Hilberer, A.; Krasnikov, V. V.; Werts, M.; Wildeman, J.; Hadziioannou, G. (Polymer Chemistry Department and Materials Science Centre, University of Groningen, Nijenborgh 4, AG Groningen, 9747, Neth.). Synthetic Metals, 84(1-3), 881-882 (English) 1997. CODEN: SYMEDZ. ISSN: 0379-6779. Publisher: Elsevier.

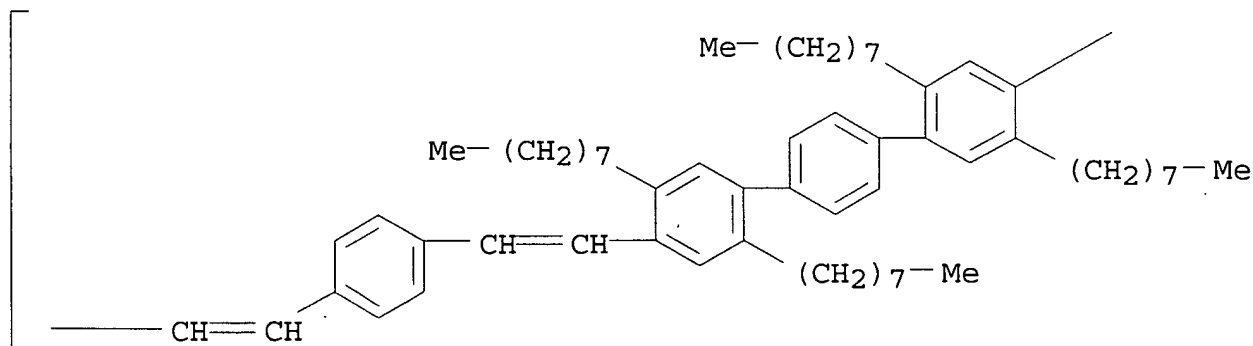
IT 164532-73-4, Poly[2,5,2'',5''-tetraoctyl-p-terphenyl-4,4''-ylenevinylene-p-phenylene vinylene]

(elec. and optical properties of LEDs based on conjugated PPV block copolymers)

RN 164532-73-4 HCA

CN Poly[(2,2'',5,5''-tetraoctyl[1,1':4',1''-terphenyl]-4,4''-diyl)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

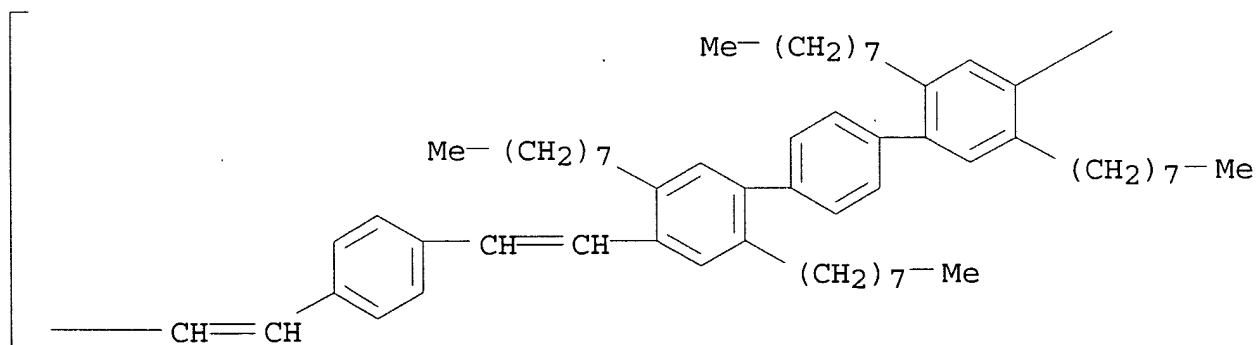
] n

L71 ANSWER 43 OF 54 HCA COPYRIGHT 2005 ACS on STN
 126:75764 LEDs based on conjugated PPV block copolymers. Brouwer, H.
 J.; Hilberer, A.; Werts, M.; Wildeman, J.; Hadziioannou, G.
 (Materials Science Centre, University Groningen, Groningen, 9747 AG,
 Neth.). Proceedings of SPIE-The International Society for Optical
 Engineering, 2852 (Nonlinear Optical Properties of Organic Materials
 IX), 170-176 (English) 1996. CODEN: PSISDG. ISSN: 0277-786X.
 Publisher: SPIE-The International Society for Optical Engineering.

IT **164532-73-4**
 (elec. and optical properties of light-emitting diodes based on
 conjugated poly(p-phenylenevinylene) block copolymers)

RN 164532-73-4 HCA
 CN Poly[(2,2'',5,5''-tetraoctyl[1,1':4',1''-terphenyl]-4,4''-diyl)-1,2-
 ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)

PAGE 1-A

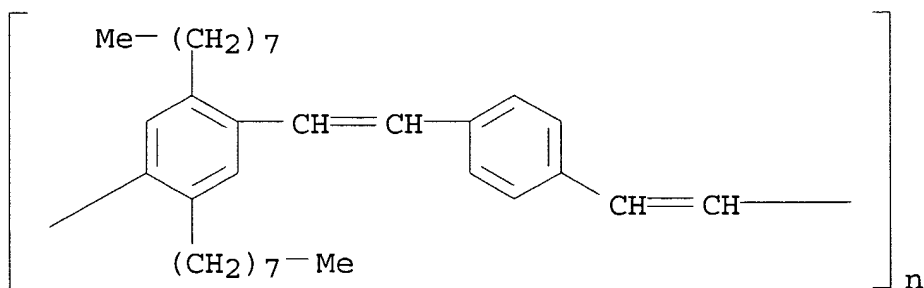


PAGE 1-B

] n

L71 ANSWER 44 OF 54 HCA COPYRIGHT 2005 ACS on STN
 126:24299 Polymer LED utilizing poly(arylene vinylenes). Ohnishi,
 Toshihiro; Doi, Shuji; Tsuchida, Yoshihiko; Noguchi, Takanobu
 (Tsukuba Research Lab., Sumitomo Chemical Co. Ltd., Ibaraki, 300-32,
 Japan). Springer Proceedings in Physics, 81 (Materials and
 Measurements in Molecular Electronics), 245-255 (English) 1996.
 CODEN: SPPPEL. ISSN: 0930-8989. Publisher: Springer.

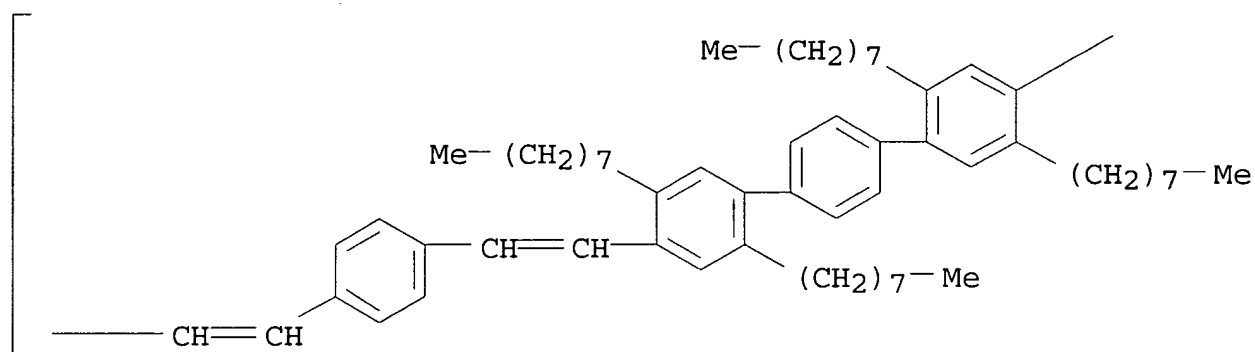
IT **184431-55-8P**
 (prepn. and optical properties of LEDs)
 RN 184431-55-8 HCA
 CN Poly[(2,5-dioctyl-1,4-phenylene)-1,2-ethenediyl-1,4-phenylene-1,2-
 ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 45 OF 54 HCA COPYRIGHT 2005 ACS on STN
 123:69569 Novel high efficiency copolymer laser dye in the blue
 wavelength region. Brouwer, Hendrik-Jan; Krasnikov, Victor V.;
 Hilberer, Alain; Wildeman, Jurjen; Hadziioannou, George (Polymer
 Chemistry Department, State University Groningen, Groningen, 9747,
 Neth.). Applied Physics Letters, 66(25), 3404-6 (English) 1995.
 CODEN: APPLAB. ISSN: 0003-6951. Publisher: American Institute of
 Physics.

IT **164532-73-4**, Poly[2,5,2'',5''-tetraoctyl-p-terphenyl-4,4''-ylene vinylene-p-phenylenevinylene]
 (blue high efficiency laser dye)
 RN 164532-73-4 HCA
 CN Poly[(2,2'',5,5''-tetraoctyl[1,1':4',1''-terphenyl]-4,4''-diyl)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)

PAGE 1-A



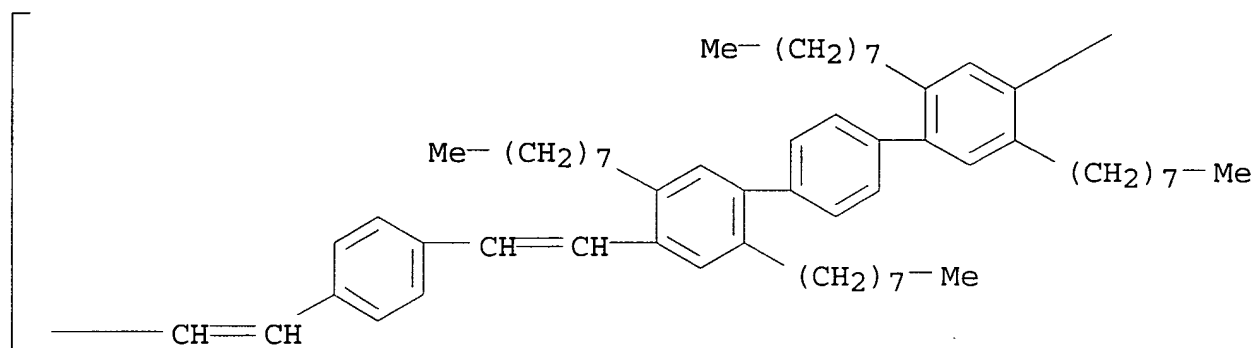
PAGE 1-B

L71 ANSWER 46 OF 54 HCA COPYRIGHT 2005 ACS on STN
 123:43477 Synthesis and Characterization of a New Efficient Blue-Light-Emitting Copolymer. Hilberer, Alain; Brouwer, Hendrik-Jan; van der Scheer, Bart-Jan; Wildeman, Jurjen; Hadziioannou, Georges (Department of Chemistry, University of Groningen, Groningen, 9747 AG, Neth.). Macromolecules, 28(13), 4525-9 (English) 1995. CODEN: MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.

IT **164532-73-4P**
 (synthesis and characterization of new efficient blue-light-emitting copolymer)

RN 164532-73-4 HCA
 CN Poly[(2,2'',5,5''-tetraoctyl[1,1':4',1''-terphenyl]-4,4''-diyl)-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl] (9CI) (CA INDEX NAME)

PAGE 1-A

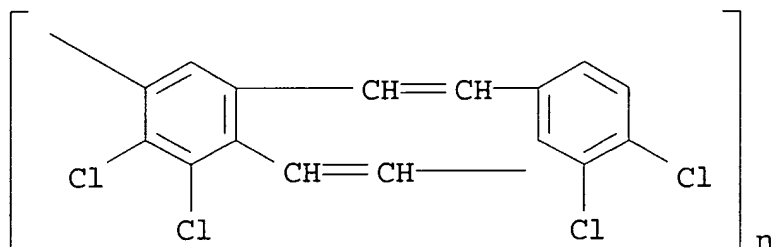


PAGE 1-B

L71 ANSWER 47 OF 54 HCA COPYRIGHT 2005 ACS on STN
 118:103027 Polymers with electrically conductive and nonlinear optical properties. Stenger-Smith, John (USA). U.S. US 5162470 A 19921110, 5 pp. (English). CODEN: USXXAM. APPLICATION: US 1991-682169 19910409.

IT **146222-75-5P**
 (prepn. of, with elec. conductive and nonlinear optical properties)

RN 146222-75-5 HCA
 CN Poly[[2,3-dichloro-5-[2-(3,4-dichlorophenyl)ethenyl]-1,4-phenylene]-1,2-ethenediyl] (9CI) (CA INDEX NAME)



L71 ANSWER 48 OF 54 HCA COPYRIGHT 2005 ACS on STN

116:42331 Light and heavy excitonic polarons in conjugated polymers.

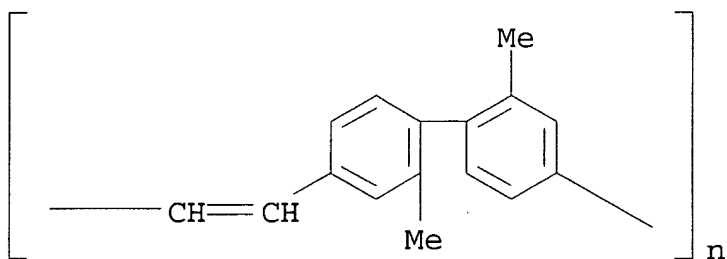
Mahrt, R. F.; Baessler, H. (Fachbereich Phys. Chem., Philipps-Univ., Marburg, 3550, Germany). Synthetic Metals, 45(1), 107-17 (English) 1991. CODEN: SYMEDZ. ISSN: 0379-6779.

IT 134332-45-9

(light and heavy excitonic polarons in fluorescence spectra of, chain torsional motion in relation to)

RN 134332-45-9 HCA

CN Poly[(2,2'-dimethyl[1,1'-biphenyl]-4,4'-diyl)-1,2-ethenediyl] (9CI)
(CA INDEX NAME)



L71 ANSWER 49 OF 54 HCA COPYRIGHT 2005 ACS on STN

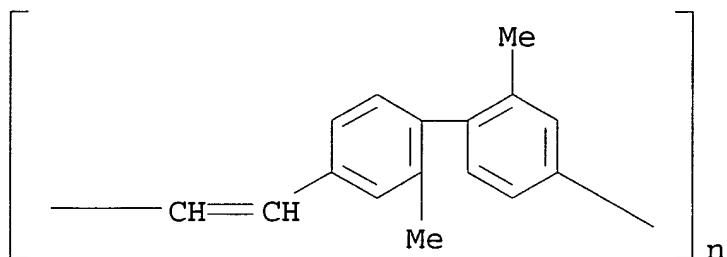
115:136900 Aspects of synthesis, analysis and application of aromatic conjugated polymers. Greiner, Andreas; Martelock, Heidi; Noll, Anne; Siegfried, Norbert; Heitz, Walter (Zent. Materialwiss., Philipps-Univ. Marburg, Marburg, 3550, Germany). Polymer, 32(10), 1857-61 (English) 1991. CODEN: POLMAG. ISSN: 0032-3861.

IT 135876-12-9P

(prepn. and properties of)

RN 135876-12-9 HCA

CN Poly[(2,2'-dimethyl[1,1'-biphenyl]-4,4'-diyl)-1,2-ethenediyl], (E)-
(9CI) (CA INDEX NAME)



L71 ANSWER 50 OF 54 HCA COPYRIGHT 2005 ACS on STN

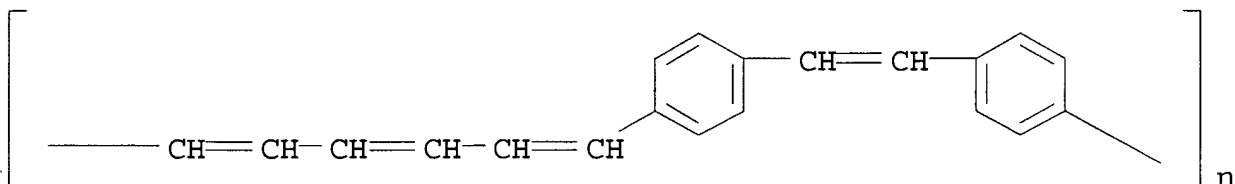
111:78718 Synthesis and electroconductivity of poly(1,4-phenylene-1,3,5-hexatrienylene-1,4-phenylenevinylene). Jin, J. I.; Lee, Y. H.; Lee, K. S.; Kim, S. K.; Park, Y. W. (Chem. Dep., Korea Univ., Seoul, 136-701, S. Korea). Synthetic Metals, 29(1), E47-52 (English) 1989. CODEN: SYMEDZ. ISSN: 0379-6779.

IT 122122-38-7P

(prepn. and elec. cond. of iodine-doped)

RN 122122-38-7 HCA

CN Poly(1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,3,5-hexatriene-1,6-diyl) (9CI) (CA INDEX NAME)



L71 ANSWER 51 OF 54 HCA COPYRIGHT 2005 ACS on STN

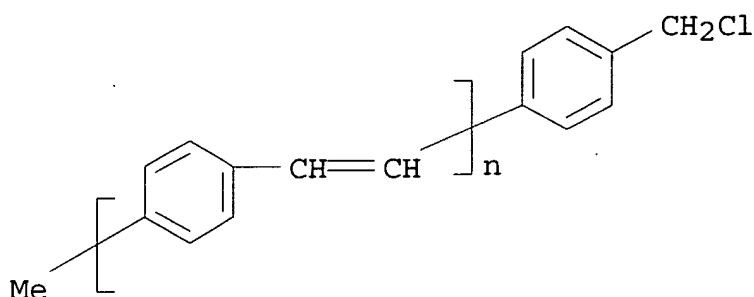
100:192711 Electrically conducting polymers: arsenic pentafluoride-doped poly(phenylenevinylene) and its analogs. Gourley, K. D.; Lillya, C. P.; Reynolds, J. R.; Chien, James C. W. (Dep. Chem., Univ. Massachusetts, Amherst, MA, 01003, USA). Macromolecules, 17(5), 1025-33 (English) 1984. CODEN: MAMOBX. ISSN: 0024-9297.

IT 89676-43-7

(elec. cond. of, arsenic pentafluoride doping effect on)

RN 89676-43-7 HCA

CN Poly(1,4-phenylene-1,2-ethenediyl), .alpha.-methyl-.omega.-[4-(chloromethyl)phenyl]- (9CI) (CA INDEX NAME)



L71 ANSWER 52 OF 54 HCA COPYRIGHT 2005 ACS on STN

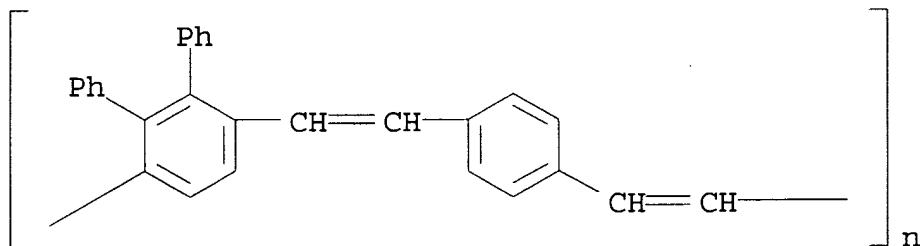
100:192421 Phenylated poly(xylylidenes) via a phase transfer catalyzed Wittig reaction. Feld, William A.; Ganesan, Aparna; Nymberg, Daniel D. (Dep. Chem., Wright State Univ., Dayton, OH, 45435, USA). Polymer Preprints (American Chemical Society, Division of Polymer Chemistry), 24(1), 143-4 (English) 1983. CODEN: ACPPAY. ISSN: 0032-3934.

IT **89961-25-1P**

(prepn. of, by phase transfer-catalyzed Wittig reaction)

RN 89961-25-1 HCA

CN Poly([1,1':2',1''-terphenyl]-3',6'-diyl-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl) (9CI) (CA INDEX NAME)



L71 ANSWER 53 OF 54 HCA COPYRIGHT 2005 ACS on STN

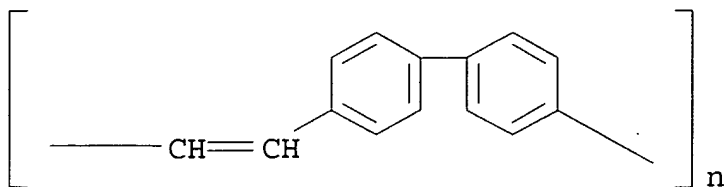
81:136633 Polyarylenevinylenes. 8. Electric and photoelectric properties of poly(p-diphenylenevinylenes). Hoerhold, Hans H.; Opfermann, Johannes (Sekt. Chem., Friedrich-Schiller-Univ. Jena, Jena, Ger. Dem. Rep.). Faserforschung und Textiltechnik, 25(3), 108-11 (German) 1974. CODEN: FSTXA7. ISSN: 0014-8628.

IT **32032-44-3**

(photocond. of)

RN 32032-44-3 HCA

CN Poly([1,1'-biphenyl]-4,4'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



L71 ANSWER 54 OF 54 HCA COPYRIGHT 2005 ACS on STN

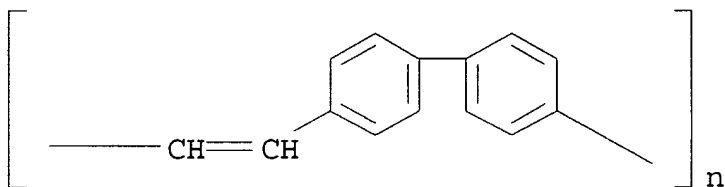
68:22379 Poly(p-xylylidene) and poly(p-xylylene) polymers. Meyer, Hans Rudolf (W. R. Grace and Co.). Brit. GB 1092824 19671129, 7 pp. (English). CODEN: BRXXAA. APPLICATION: GB 19650409.

IT 32032-44-3P

(manuf. of, by .alpha.-halo monomer reaction with alkalies, and thermal stability of products therefrom)

RN 32032-44-3 HCA

CN Poly([1,1'-biphenyl]-4,4'-diyl-1,2-ethenediyl) (9CI) (CA INDEX NAME)



=>